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"Walks in Rome."

THE extraordinary popularity of this book,* which has now reached its twelfth edition, must clearly be due to its supplying a real want, commonly felt by the general mass of English-speaking visitors to Rome, most of whom are neither learned in classical archæology nor very familar with the history of Mediæval art.

For this purpose the general scheme of the book is a very good one; the grouping of the places described into a series of walks about Rome has many conveniences, and it is always pleasant and sometimes instructive to read the numerous extracts which are so copiously inserted from English, French, and American writers on the very site to which the quoted passage refers. Moreover, Mr. Hare has considerable literary facility and the gift of putting things in a pleasant and readable way, valuable qualities in a book meant for popular use.

Other qualifications are, however, necessary in the author of a work on Ancient and Mediæval Rome. Some classical scholarship and some real acquaintance with the science of archæology are absolutely essential, and in these qualifications Mr. Hare appears to be almost wholly deficient.

The result is that nearly every page is marred by some inaccuracy or blunder, very frequently of the most serious kind, both in the descriptions of the existing remains, and also in the accounts of the accepted theories relating to the attribution and history of the various buildings. It would be a weary and thankless task to make out a complete list of Mr. Hare's mis-statements; a few examples may suffice to show that our accusation is not made without some just ground. At p. 124 of vol. i. we read that the great flight of steps leading up to the Church of Ara Cœli marks "the site of the famous staircase to the temple of Jupiter Capitolinus." Now, putting aside the fact that recent discoveries on the other peak of the Capitoline Hill have made it almost, if not quite, certain that the Church of Ara Cœli stands on the ancient Arx, and not on the site of the great Tuscan temple of Jupiter, we know that till the fourteenth century there was no access whatever to the Capitolium from the side of the Campus Martius; the steep ascents, both to the temple of Juno Moneta and to that of Capitoline Jupiter, being alike on the side of the Forum Romanum. In ancient times an inaccessible cliff, strengthened by a fortification wall, formed a complete defence on the western side,—that by which the Capitolium is now most easily approached.

In describing the so-called Tabularium, which occupies the Forum side of the Capitoline Hill, Mr. Hare writes,—"This is one of the earliest architectural relics in Rome. It is built in the Etruscan style, of huge blocks of tufa or peperino." The fact is that both the documentary history of the building and the character of its masonry show that it is not older than the early part of the first century B.C. In what may be called "the Etruscan style" blocks of much greater size, and of very varying dimensions, are used; while in the Tabularium (so-called) the blocks are all accurately worked to the same sizes, 4 ft. by 2 ft. by 2 ft., so that the courses of "headers" and "stretchers" work in with absolute regularity in the fashion of a modern well-built brick wall in "English bond,"—a method of building which certainly was not developed to this extreme pitch of accuracy till the latter years of the Republican period.

The long staircase leading down through the Tabularium to the Forum level, of which Mr. Hare says (i., 130) that "traces exist," is, on the contrary, the best-preserved portion of the building; all its sixty-four steps are as sharp and perfect as when they were built, mainly owing to the disuse of this approach caused by Domitian, who built the existing Temple of Vespasian close up against the Tabularium in such a way that the cella of the temple completely blocked up the only lower access to the staircase.

The celebrated inscriptions known as the Fasti Consulares were discovered, not near any temple of Minerva Chalcidica (as we are told, i., 147), but near the Temple of Vesta. This is an important point, as Mr. F. M. Nichols has recently shown in an interesting paper (printed in *Archæologia*, vol. 50, part i.) that there are many reasons for believing that these consular lists were engraved on the marble walls of a chamber in the Regia, the official residence of the Pontifex Maximus, remains of which have recently been exposed close by the Temple of Vesta.

With regard to the Forum of Julius Cæsar, (i., 180), Mr. Hare writes:—"The only visible remains of this Forum are some courses of high square blocks of stone (*Lapis Gabinus*) in a dirty court." A careful examination of the remains will show that much more than this really exists. There is a series of arched openings, behind each of which is a vaulted chamber, still well preserved, though partly buried below the modern ground level. The construction of these arches is of special interest as an example of the skilful Roman use of different materials. The head of each opening is formed by a very carefully-jointed flat arch, made of brown tufa, not *Lapis Gabinus*, except the springers and key-stones, which are of the harder cream-white travertine. Over each flat arch is a semicircular relieving arch with tufa voussoirs. The vaults of the chambers are of concrete, made of pozzolana, lime, and fragments of tufa. These chambers, which once probably surrounded the whole Forum Julium, appear to have been offices for lawyers' clerks and other officials connected with the business of the place.

There is no authority for the author's statement (i., 186) that distances within the walls of Rome were inscribed upon the *Umbilicus Romæ*, which stood close to the Arch of Severus, on what has been conjecturally called the *Græcostasis*. Except a bare mention in the Regionary catalogues, little or nothing is known about the *Umbilicus*. Judging from its name and the conical shape of the existing remains, it was probably a sort of copy of the celebrated *Omphalos* at Delphi, which was supposed to mark the centre of the world. The form of the Omphalos, which is represented on various Greek vases and coins, especially on the electrum staters of Cyzicus and silver tetradrachms of the Seleucidæ, seems to have been very similar to the brick and concrete cone in the Forum Romanum, from which all the once rich marble linings have been stripped off. The account of the adjoining Rostra, together with a good deal more of the newly-inserted paragraphs about recent discoveries, is taken, without any acknowledgment whatever, from Middleton's "Ancient Rome in 1885," but with his usual inaccuracy Mr. Hare has introduced blunders of his own among the borrowed information.

At i., 202, we are told that "the front of the Church of S. Adriano is a fragment of the basilica of Æmilius Paulus"; the real site of this basilica was to the east of the church, and its remains, if any exist, are hidden 20 ft. below the present level, under a row of modern houses. The Commendatore Lanciani has pointed out, in his able monograph on the history of the Curia or Senate House, that it is this building, as reconstructed in the reign of Diocletian, which still partly exists as the Church of St. Adriano.

At i., 230-31, Mr. Hare appears to think that the upper story of the Colosseum was built by Titus; whereas, the Flavian work really ends with the third tier of open arches; the remainder was very carelessly built in the

* Walks in Rome. By Augustus J. C. Hare. Twelfth edition, revised. London: Smith, Elder, & Co.

time of Severus Alexander and Gordianus III., after a fire caused by lightning, which burnt the upper galleries, which at that time were of wood. The difference of workmanship between the masonry of the Flavian period, *c.* 80 A.D., and that of the third century, is very striking, the later part being mostly composed of drums of columns, pieces of entablature, and other fragments taken from older buildings, and very clumsily fitted together.

A more serious blunder is contained in the statement (at i., 206) that the Basilica of Constantine occupies the site of the Temple of Peace.

This magnificent temple, one of the most splendid in Rome, formed the central object in Vespasian's Forum Pacis; part of its precinct wall still exists, built of massive blocks of peperino, with a doorway formed in travertine under a neatly-jointed flat arch. The basilica of Constantine stands quite clear of the Forum of Peace; and, indeed, the Templum Pacis had been rebuilt by Severus after the fire in the reign of Commodus, and was still standing when Maxentius and Constantine built the great basilica. The real site of the Temple was near the Church of S. Cosmo e Damiano, on the side away from the basilica.

One passage (i., 308) is so very funny that we must quote the whole of it. It appears not to be intended for a joke. Describing the Flavian Palace on the Palatine, Mr. Hare writes:—"Beyond the triclinium is a disgusting memorial of Roman Imperial life, in the *Vomitorium*, with indications of its basin, whither the feasters retired to tickle their throats with feathers, and come back with renewed appetite to the banquet." This novel meaning applied to the common Latin word *vomitorium* is the more startling, as at i., 231, Mr. Hare uses it in its right meaning as a passage for the exit of a crowd. It need hardly be said that the indications of such a basin exist only in Mr. Hare's imagination, or were perhaps derived from the fertile invention of some *valet de place*. The house buried under the peristyle of the Flavian Palace is not, as Mr. Hare states at i., 306, any part of the Palace of Augustus, which really stood quite clear of Domitian's Palace on the S.E. Any of the more recently published plans of the Palatine will show this.

The author does not often commit himself to a translation of the Latin which he quotes, but it may be noted that *schola* does not mean school in such a connexion as Schola Xanthi (see i., 256), or Schola Græca, and that the word *pseudo-peripteral* (i., 259) does not mean "one side being enclosed in other buildings."

A better Latin scholar would know that Varro is not an authority with regard to the etymology of Roman names, and would not have seriously quoted the derivation of Esquiline (Hill) from "*excultus*, because of the ornamental groves which were planted by Servius Tullius." It is really derived from *ex-quil-iae*, "the dwellers outside," the root "quil" occurring in *in-quil-inus*, "dwellers within." Varro's other derivations, such as *velabrum* from *vehere*, to carry, because people were ferried across its pools, are equally fanciful and groundless, as was nearly all the etymology of two thousand years ago, and yet this is the authority which is usually given throughout the book.

Mr. Hare's knowledge of Mediæval art and archæology is little if any more complete than his acquaintance with the Classical period. He gives (ii., 219) the year 1370 as the date of the unique "Pointed" Church of S. Maria sopra Minerva; the fact being that it was built in 1280–90 by the same Dominican architect-monks who designed another grand church for their order,—that of S. Maria Novella at Florence. The lovely cloisters of S. Paolo fuori le Mura, designed by one of the Cosmati in about the year 1285, is called by Mr. Hare (ii., 425) a work of the twelfth century, in spite of its obvious connexion both in date and design with the Lateran cloisters, which he rightly refers to the thirteenth century.

Another misstatement at ii., 427 (note), is more excusable, as it has been previously made by many writers on Mediæval art:—"Among the most interesting of the objects lost in the fire [that which destroyed the nave of S. Paolo fuori le Mura in 1823] were the bronze gates ordered by Hildebrand (afterwards Gregory VII.) when legate at Constantinople, for Pantaleone Castelli, in 1070, and adorned with fifty-four Scriptural compositions, wrought in silver thread." These very valuable relics of the eleventh century were happily preserved from the flames, and are now kept in a large wooden case in the sacristy of S. Paolo, where they are very seldom seen by visitors, as a special permission from the ecclesiastical authorities is required in order to get the case unlocked. Mr. Hare's "silver thread" really is a fine variety of niello, with broadly-drawn silver inlay.

One great fault in the sections of this work devoted to Mediæval art is the utter want of selection in describing pictures and sculpture. Long lists of quite worthless paintings are given, and really notable works of art are often passed over without notice. Thus, in the account of S. Maria Maggiore, a good deal of space is devoted to the costly rubbish in the Capella Borghese, and nothing is said about the magnificent reliefs by the great Florentine sculptor, Mino da Fiesole, which are now built in to the walls of the apse, inside the church, under the windows. These reliefs, together with a number of others, —one signed by Mino,—now in the sacristy, once formed part of a magnificent reredos behind the high altar, which in the seventeenth century was broken up and its reliefs dispersed; when perfect it must have been the largest and most elaborate of all this sculptor's works. Another of Mino's finest works is also passed over in silence, namely, the reredos in the N.E. chapel of S. Gregorio on the Coelian. Mr. Hare does casually mention the altar, which belonged to this reredos, and is now moved to the other side of the church, but he says nothing as to its authorship.

The account of another beautiful work of the Florentine is strangely blundered. At i., 38, note 2, we read:—"The beautiful fifteenth-century altar of four virgin saints at S. Cosimato in Trastevere is said to have been brought from this chapel," *i.e.*, that of Card. Cibo, in the Church of S. Maria del Popolo. This so-called "altar" is really the tomb of Cardinal Cibo himself, the altar which now stands under it is quite a modern addition. Several other instances exist in Rome of a fine fifteenth-century tomb having been made into the reredos for a later altar. A noteable example is to be seen at the east end of the south aisle of the Church of S. Cecilia.

With regard to the fifteenth-century bronze doors of St. Peter's, Mr. Hare repeats an often-corrected blunder of Vasari. The Simone, who with Filarete modelled and cast this noble piece of bronze-work, was not the brother or any relation whatever to the Florentine Donatello. His real name was Simone di Ghini, and he was also the principal sculptor of the effigy of Pope Martin V., which at ii., 103, is attributed to Filarete.

The truth is that this later part of the work needs as much careful revision and pruning as that which deals with ancient Rome, and the general conclusion that one is led to is that a book which deals with so complex and often difficult a subject requires on the part of its author more knowledge and much more power of patient labour than Mr. Hare possesses.

It is greatly to be regretted that so very successful a work (financially) as this should not possess the solid merit of accuracy; it would obviously be no less pleasant reading, and no less suited to the general public if all its many blunders were carefully sought out and corrected. The so-called "revision" of this last edition appears to have done little or nothing in this direction

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The Metropolitan Fire Brigade.—A lecture on "Our Fire Defences" was given before the members of the Balloon Society, on the 19th inst., by Mr. Jenkyn Ingram, who, in the course of his address, contended that Captain Shaw's position was too autocratic, and that the brigade should be controlled by a committee with more expert knowledge.

BURGES'S "DETAILS OF STONE WORK."

THIS thin folio forms a second volume* or second series of the illustrations of Burges's architectural designs, of which the companion volume, showing the general designs of buildings, has already been issued under the editorship of Mr. Pullan, and was noticed in the *Builder* for June 23, 1883. Three or four of the same plates, giving general views of buildings, are repeated in this volume, in order to render the meaning of the details more obvious.

Burges's curious and very rough, and even, one may say, ugly drawings, illustrating his studies on the spot of Mediæval masonry and detail, published a good many years ago, will be in the memory of many of our readers, though not many, perhaps, possess a copy, for the edition and its circulation were, if we remember rightly, somewhat limited. The plates, both in their subjects and manner of drawing, were strongly marked by Burges's sturdy and defiant originality, which, indeed, was in this case so defiant that some of his most intimate friends and architectural allies confessed to a difficulty in swallowing the fare put before them. The work now before us,—a much smaller one in page area,—does not partake of [the *outré* character of the larger stonework drawings just referred to. It consists, in fact, of general plans and sections of some of Burges's most remarkable designs, executed or unexecuted, accompanied by details of portions, with plans and sections showing the masonry construction. The general sections and elevations are of the most businesslike character, drawn squarely and mechanically in line, with the details merely blocked out in outline for further delineation in larger drawings.

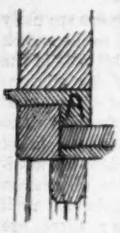
In a short preface the editor, after remarking truly that correct detail no less than good proportion is essential to the perfection of Gothic architecture, claims for Burges that, while extremely accurate in his knowledge of Gothic detail (which no one will question), he had the power of so using his collected materials as to produce originality and correctness without copyism. Among the buildings illustrated in this volume, which include Cork Cathedral and Hartford College, Connecticut (executed), and the School of Art, Bombay, and the Memorial Church for Constantinople (unexecuted), "each was adapted to suit the climate, the site for which it was intended, and the circumstances under which it was designed. In his own house, which was one of his best works, although there are ideas taken from Greek and Assyrian architecture, they are carried out exactly as a thirteenth-century architect would have carried them out had he possessed the enlarged opportunities of observation that we possess in the present day." That is true enough as far as it goes, but there is exactly the rub: Burges *did* carry out buildings "exactly as a thirteenth-century architect would have carried them out," and Mr. Pullan puts forth this qualification as if it were to satisfy all demands. But why did not Burges endeavour to carry out buildings exactly as a nineteenth-century architect should carry them out? That he had "a great power of assimilation" is quite true; he assimilated the Mediæval spirit more fully, in reality, than either Street or Scott did; and it is also true that he adapted his buildings to their sites and purposes with a considerable amount of variety and originality. But it is the variety and originality of a thirteenth-century architect, not of a nineteenth-century one. And it is for that reason that, as we turn over these pages we seem to be looking back at a chapter of architectural revival of which the page has been already turned. Mr. Pullan notes that there is a great deal of "discordance" in the detail of Gothic architecture as carried out now, an admixture of English, French, German, and Italian details from both ecclesiastical and domestic buildings. If this charge is intended

* The Architectural Designs of W. Burges, A.R.A. Details of Stonework. Edited by R. P. Pullan, F.S.A., F.R.I.B.A. London: B. T. Batsford. 1887.

as against the leading men who have practised Gothic architecture during the revival, we hardly think it is true; not, at any rate, to the extent which is implied. But it is curious, almost pathetic, to read that "this will not be so in future, when increased knowledge and a more extended power of analysis will enable people to distinguish good architecture from inferior"; and so we are offered Burges's assimilated Mediæval architecture as an assistance in the right direction. Does not Mr. Pullan perceive any sign that the page is turned, and that this particular chapter of architectural revival is pretty nearly closed?

We do not question the interest of the publication, however; we only question it having the precise kind of value which the editor attributes to it,—in that it comes too late. Burges's plates are more likely to warn the student off Gothic revival than to spur him in carrying it on, for the kind of work they present is so palpably out of touch with the present day. In the first place, the spirit of the architecture is so completely and uncompromisingly Mediæval; and the English world has pretty well got over its Mediæval fever. Then it is nonsense to say there is not copyism. It is true that in the general scheme of combination and distribution of the materials there is originality. In the design for the Bombay School of Art, for instance, there is a distinct treatment of Gothic to suit it to a tropical climate. Perforated slabs were, wherever practicable, to be substituted for glass windows. The roofs were to be of low pitch, and framed double, to allow of perfect ventilation, and the eaves were to have great projection, in order in some degree to shade the windows. All this is well, though, after all, it is not more than the exercise of ordinary common sense, for no one could have lived in a Gothic building in that climate if it had not been modified for the circumstances. But then, we are told, "Mr. Burges chose the architecture of the latter part of the twelfth century, which is characterised by broad masses and deep shadows, as that most suitable for an Eastern climate." But why the European style of the twelfth century for an Eastern country? Why, if there must be a past style adopted, not take one native to the soil? or, finally, was it not possible, by "power of assimilation," to develop something "characterised by broad masses and deep shadows," without going back to the twelfth century for it? We cannot be surprised that Burges did not attempt to do so, because he lived in the midst of the Gothic movement, and the most original of us can hardly go right against the stream; but we are surprised that Mr. Pullan should not perceive that things have moved since then. However, granting that in this and in the memorial church design there is an adaptation to the site and circumstances which takes each of the designs, as a whole, out of the region of copyism, surely it cannot be denied that the details shown in these pages are full of copyism. They are, for the most part, simply early French Gothic adopted wholesale. And where they are modified, they are not improved. The massive character of this phase of Gothic was, no doubt, peculiarly attractive to Burges's genius, which leaned towards weight and mass in architectural expression; but his desire for these qualities led him to exaggerate his models; and a good deal of the detail shown in these plates, the short, thick, stunted shafts and big capitals and bases, impresses as, though powerful, decidedly wanting in refinement; in some cases even "clumsy" would hardly be too harsh a word to apply to it.

The real value of these drawings to the architectural student, old and young, consists, in the first place, in the preference for solidity and massiveness which they show, the absence of anything that is flimsy or at variance with monumental character; but still more in the evidence given, by the detail drawings more especially, of Burges's truly architectural feeling in designing. His way of treating the sections and plans is so distinctly that of a man who was not designing a design, but building a building. Everything in his detail seems thought out with reference to the putting together of the stones, and not as a process of putting lines on paper. We should not recommend any young student to go to the book to study Gothic detail, or to adopt his style from it, as if that were the same thing as going to original mediæval work, as the editor fondly suggests. But what he is likely to acquire from the study of it is a feeling for massiveness and monumental character in architecture, and a clearer perception of the relation between masonic construction and outward architectural expression. We do not know that all the constructive details are to be recommended as models,—at least, if we take the drawings as intended accurately to show the jointing. The student will learn from them how solid and massive was Burges's manner of putting stones together, and how religiously he carried his string-course stones right through the wall, so as to make them real constructive bond and not mere ornamental facing. The details of Cork Cathedral tower may be studied with particular advantage, and the section through the nave. But we should hope that Burges did not really mean the window-label stones in the drawings for Brisbane Cathedral, for instance (plate 12), to be shaped as shown on the section (see A in figure). If the stone was really intended to be cut that way, it is not only a great waste of labour and material, but it is a form in which, in the event of any settlement, the stone would be almost sure to crack at the angle; and if it is not meant so (and we can hardly think it is), the drawing is misleading for purposes of study.



The drawings were, however, well worth publishing, as the record of a very gifted and original architect's manner of working, and though the editor somewhat exaggerates their value as models, they are well worth study if taken as sources of architectural inspiration and instruction, though not as models of style. Mr. Pullan speaks of possible future volumes containing illustrations of Burges's designs for woodwork and metal-work. These could hardly fail to be of interest; probably of greater interest than the volume we are now noticing, as there would be more scope in them for the exercise of the powerful originality in detail which Burges undoubtedly possessed, but which, in regard to purely architectural detail was, to our thinking, somewhat weakened by his loyalty to Mediæval precedent.

NOTES.

DURING the remarkably severe thunderstorm which prevailed in London for nearly three hours on the evening of the 17th inst., several buildings were struck by the electric fluid and more or less damaged. The most serious case which has come to our notice is that of the spire of Christ Church, Endell-street, Long Acre, which has been very badly shattered, especially on its north-eastern side. The spire, which rises to the height of about 120 ft., was built, with the church, more than forty years ago, the architect being Mr. Benjamin Ferrey. (A view and description of the church appeared in the *Builder* for March 8, 1845.) The stone appears to be a variety of Bath, and is in parts very much decayed. An iron finial surmounts the spire, but there was no lightning-conductor. The electric fluid apparently struck the iron finial, by which it seems to have been conducted into the interior of the spire, and, possibly attracted by iron cramps in the stonework, to have burst its way through to the outside of the spire, carrying away large masses of stone. The side of the spire most affected looks as though it had suffered bombardment, great holes being made in it. These holes, especially one above the uppermost lucarne, have been partly filled up again by blocks of stone, displaced from above, lodging there in their descent, and showing by their projection that they were only just saved from falling to a lower level. Altogether, the spire is in a very precarious condition, as may be seen by viewing it through a glass from the workhouse yard adjoining. An inspection of the interior still further reveals the ruined condition of the spire, and makes one marvel how it holds together. Services have been discontinued in the church, and a considerable area of the street in front of the spire has been hoarded in, and the carriage traffic diverted for fear of the effects of vibration. The work of restoring the spire has been very promptly placed in the hands of Messrs. R. Aviss & Co., of Putney, and we wish them and their workmen well out of their hazardous undertaking. Mr. Coleman, their courteous representative on the works, pointed out to us the curious way in which the electric fluid, on reaching the base of the tower, travelled for some fifteen yards or so along the iron railings on the north side of the church, and was conducted by an iron stay-bar into the eastern-most buttress but one, seriously rupturing it. At this point the course of the fluid is lost sight of. The moral of this and of many previous casualties is, of course, that every church and every prominent building ought to be provided with a lightning-conductor, whose efficiency should be periodically tested.

MR. DE LISLE, the member who "did not even smile," deserves the best thanks of all who are interested in decorative painting generally, and in the completion of the decoration of our national palace of legislature more particularly, for his sensible letter in the *Times* of Tuesday in regard to the unfinished decoration of the Central Hall of the Houses of Parliament. As Mr. De Lisle says, the existing mosaic of St. George by Mr. Poynter "may not be faultless," but its general effect is "bright and splendid" (we presume Mr. De Lisle uses "splendid" in its literal Latin sense), and its cost, 650*l*, might be said to be almost absurdly small for a work of high-class design, covering so large an area, and executed in so costly and laborious a method as mosaic. To our thinking, Mr. Poynter's design deserves a good deal more than the faint praise which even those in favour of continuing the series have been content to bestow upon it. His "St. George" is a fine and heroic-looking figure, and the general effect of the design is decorative and well suited to mosaic. But, at all events, it is a commencement of the scheme of decoration, which ought to be continued, and which has long remained incomplete, to our national discredit. Mr. De Lisle is also quite right in his conclusion that mosaic alone can be advantageously or rightly employed for the completion of the series of pictures in the central octagon, and that for one more reason than he seems to be aware of. Not only is it the case that the brilliant scheme of decoration of the Central Hall, with its gilding and stained glass, requires a no less brilliant medium than mosaic for its pictorial decoration; but also, the one area having now been filled with mosaic, the treatment of the other similar spaces with fresco, as one or two of the æsthetic (?) blockheads in the House have proposed, would be a proceeding architecturally out of the question, unless those who propose it are prepared to back out Mr. Poynter's mosaic, and replace it also with fresco. Mosaic and fresco will not range together; and fresco pictures would be killed in that position by their decorative surroundings. We fear Mr. De Lisle's appeal has little chance of success in an assembly where vulgarity and economic claptrap are so rampant as in the present House of Commons; but he is, at all events, to be thanked for having made one more effort to arouse attention to the discreditable manner in which the central rendezvous of our legislative palace, the architectural keystone of the design, is left year after year in its incomplete state, a derision to visitors, foreign and English alike.

BY an order of the 4th of July last, only just published in the *Journal Officiel* of August 25th, the French Minister of Public Instruction and Fine Arts has created, in connexion with the Museum of Comparative Sculpture, at the Trocadéro, a French Chair or Professorship of Mediæval and Renaissance Architecture; and M. de Baudot, Inspector-General of "Travaux Diocésains," and member of the

Commission des Monuments Historiques, is nominated as the first occupant of the office. This appointment has a certain significance, as it implies a desire on the part of the Government to promote a more definite and regular study of that phase of architecture, which though it is recognised by many in France as more especially "national" than any other, is yet little studied at the École des Beaux Arts. M. de Baudot is the oldest Inspector-General of "travaux diocésains," and one of the most devoted disciples and followers of Viollet-le-Duc.

THE subscriptions to the second series of the New Obligations on the Panama Canal, which was opened on the 26th July, 1887, show a marked abatement in the confidence with which M. de Lesseps's appeals are responded to in France. The three per cent. loan of October 3, 1883, amounting to 12,000,000*l.*, was all taken, at a discount of 43 per cent. Of the first series of the "New Obligations" at 3 per cent., issued at a discount of 55 per cent., 91·7 per cent. were taken last year. Of the offer of the present year, also at 3 per cent., at a discount of 56 per cent., only 51·7 per cent. has been applied for, giving a cash amount of 4,556,000*l.*, for which the Company incurs a liability of 10,355,480*l.* The total loan liabilities of the Company, outside of the original capital of 12,000,000*l.*, now amount to 53,900,880*l.* (less a small reduction for the action of the sinking fund). For this the Company acknowledges the receipt of 29,909,348*l.* in cash, showing a rebate of 23,991,532*l.* The total to the debit of capital account thus stands at 65,900,880*l.*, of which some 8,000,000*l.* is in hand. The annual sum required for interest on the above, together with ½ per cent. for sinking fund, is 2,668,458*l.* The total amount of excavation for the canal and river deviations is now estimated at 150,000,000 cubic mètres. This estimate must, however, be considerably under the mark, as the river deviations will be very much increased in volume by the abandonment of the *Barrage* or dam at Gamboa. The deep cuttings, moreover, are only estimated for at slopes of, and under, 1 to 1; at which there can be no rational anticipation that they will stand. From the monthly accounts of excavation published from time to time it appears that 36,000,000 of cubic mètres have been excavated since 1879, leaving 114,000,000 cubic mètres, out of the minimum estimate above quoted, to be excavated on July 1st last. The rate of progress for 1886 was very nearly one million cubic mètres per month, and this has been increased by about one-sixth during the first six months of 1887. At this rate of progress it would take eight years to complete the excavation. But the true limit of time (apart from the question of the Chagres floods, and the Rio Grande diversion) is found in the Culebra cutting, which, in less than two kilomètres of length, is estimated (at 1 to 1 slopes) to contain 25,000,000 cubic mètres of rock, sand, and clay. Of this unprecedented volume only about one-tenth, or 2,550,000 cubic mètres, have yet been excavated. The largest return made from this cutting in any month hitherto was 122,000 cubic mètres in May last; the volume, however, sinking to 50,000 cubic mètres for June. At the most rapid rate yet given it would take fifteen years to execute this cutting, if the work were uninterrupted, and if the slopes stand as designed. In the course of fifteen years 40,000,000*l.* will be required to pay the amount of interest due on the money already raised, to say nothing of that required to carry on the works for the period above indicated. The above figures are all taken from the authorised publications of the company.

A VERY conspicuous object from the harbour of Queenstown is now the New Roman Catholic Cathedral, which stands almost in the centre of the lines of houses which run along the margin of the bay and line the steep slopes above. It would have been impossible to have chosen a finer site, and the building is by far the most conspicuous object as vessels draw towards the quays from the sea. Unfortunately, however, the building is incomplete, and its further progress is at present delayed for want of funds. Externally it is to all appearances nearly complete, except that the tower has yet been carried no further than the height of the roof. The south side of the building is seen from the bay, as it is built along the side of the hill from west to east. The most prominent feature is the southern transept, with a rose window and small side towers and pinnacles. The east end is in the form of an apse, whilst the unfinished tower stands in front of the west end, that is to say, at the south-west corner of the building. We understand that the building is internally also unfinished. It is most unfortunate when a striking and important building in a conspicuous situation is left in a state which is almost worse than not being in existence at all. It says little for the genuine interest of the Irish Roman Catholics in their religion or their country that they allow this work to remain unfinished.

WHEN English watering-places are annually overrun it is difficult not to be struck with the way in which those on this side of the water neglect the attractions of the glorious bay of Queenstown,—the Cove of Cork,—and the delightful shores of the Lee from Cork to Haulbowline. The bay is one of the finest boating waters in the world. There are additional attractions in the vessels of all nations which trade there, and in the splendid mail packets to and from America; there are steamers plying on bay and river, and direct railway communication with Cork and Dublin; yet there are scores of sites for houses unoccupied, and an almost total dearth of tourists.

THE effect of the treatment of sewage described in a paper sent to us by Mr. Richard Weaver, C.E., F.C.S., can only be known by trial; but there are certain leading conditions which must be fulfilled in one or other respect in every place, according to circumstances. These are not the same in all, but in most places nothing should be added to the sewage which would prevent it being used beneficially on land, and the same may be said of the solid residue separated from the sewage in tanks by settlement, and the clarification of the effluent water by chemical ingredients; for we take it that, sooner or later, the sewage of most towns must be applied to land before it is finally got rid of and passes beyond the control of the sanitary authorities. The agricultural chemist may form a pretty accurate notion of the probable effect of the "ferchlor" proposed in this case when its precise nature and composition are stated; and we should advise the inventor to make sure, before he goes any farther, that the new ingredient he proposes to add to the sewage will have no detrimental effect when it comes in contact with the soil, whether it be a light or a stiff soil, and whatever composed of, unless, indeed, the process be intended for exceptional cases only, and we cannot suppose that to be the object of the inventor. If the proposed treatment should turn out satisfactory in this respect, we should say it would prove to be a valuable discovery, for it would probably be effective in deodorising the sewage in its passage through the sewers, if applied at their upper ends; but it would hardly be practicable to apply it, as is suggested in the paper, at the heads of the house-drains. In any case in which these are laid so as not to carry off the sewage cleanly and quickly away from the house, they must perforce continue to give off foul air, until they are taken up and laid properly, for the frequent attention required to deodorise them would be given by but few persons, if any. Corporations and other sanitary authorities, however, can easily deal with the sewers in this way.

BY the fire which broke out at Knole House, Sevenoaks, on Tuesday, the 16th of August, the barn,—one of its oldest features,—and the adjoining stables were destroyed. The barn was a relic of the time of Archbishop Thomas Bourchier (died 1486), who rebuilt most of the house, enclosed the park, and devised both to his own metropolitical See of Canterbury. His successor, John Morton (died 1500), made some additions. The hall, chapel, chaplain's room, servants' "gaol," and the gate-house are of these two prelates' days. The gate-house is very like to that by Morton, the building archbishop, at Lambeth House. Cranmer, fearful of what the laity should say, exchanged the house for certain lands to the Crown. Thus it passed by favour through various hands, including those of the Protector Somerset; John Dudley, Duke of Northumberland; Cardinal Pole; and the Earl of Leicester. Ultimately Elizabeth bestowed it upon Thomas Sackville, first Earl of Dorset, in whose line it has continued ever since, save for a break during the Usurpation, and an alienation by Richard, third earl, to Alderman Henry Smith, of London, which his nephew redeemed. Lord Dorset, who died (suddenly in the council chamber, Whitehall) in 1608, also enlarged the house in the Early Italian or Classic style then in vogue. The water-spouts which he set up throughout the premises bear date 1605. Richard, fifth earl (died 1677) made substantial repairs; his union with the Lady Frances Cranfield, heir to her brother Lionel, the Earl of Middlesex, is recorded by the arms of their two houses upon the garden gates, the dial, and elsewhere. The mansion narrowly escaped from destruction by a fire, which, on the Christmas Day morning, 1817, was discovered in the Venetian chamber, and consumed the state bed that had been originally made for King James II.'s use, together with some valuable pictures and Gobelins tapestry. Its earlier annals begin with Baldwin de Bethune, *temp.* John, and so on to the Marischals, Earls of Pembroke; the Bigods, Earls of Norfolk; and Otho de Grandison, *temp.* Edward I. Viewed from without, the various buildings, in a great diversity of style, cover about five acres, and stand within a magnificently-timbered park extending over some 1,000 acres. Within is a priceless collection of paintings, with some furniture and decorations dating from the sixteenth and seventeenth centuries. Whilst the property itself takes a foremost rank amongst the historic seats of England, the prospect as viewed from River Hill over Western Kent with Penshurst, home of the Sidneys, in the nearer distance between the foreground and the Sussex downs and hills of Hampshire, spreads out unsurpassed in this country.

WRITING to the *Standard*, "F. R. A. S." suggests that to the scientific reports in our daily papers be added a notice of the exact error of Westminster Palace clock at any fixed hour of the preceding day. This error, by the way, is ascertained twice daily. On the 10th of August last the clock was advanced four seconds, having remained untouched since the 29th of March last. In telling us to regulate our own clocks and watches by marking the first note of any hour as it is struck upon Big Ben, "F. R. A. S." forgets one important element of the observation: we must also make allowance for the time that the sound has taken to reach our ears: so his recommendation is of but little practical use.

A LOCAL committee invite contributions towards the restoration of the Martyrs' Memorial at Dartford, Kent. This stands in the old burial-ground on the site of an ancient chapel that was dedicated to St. Edmund-the-Martyr. It commemorates the burning at the stake, on July 17th, 1555, in Queen Mary's reign, of Christopher Waid and two of his fellow-townsmen for their adherence to the Protestant faith. A similar movement has been made in respect of the monument to Robert Nelson, author of "Fasts and Festivals of the Church," who was the first person to be interred (1715) in the burial-ground of St. George-the-Martyr, Holborn, next north of the Foundling Hospital, London. The Latin epitaph was composed by Bishop Smalridge. Mr. Butterfield has examined the monument, and it is estimated that 60*l.* will meet the necessary repairs and provide a suitable railing.

MRS. HOLMES, honorary secretary to Lord Meath's Public Gardens Association, wrote recently to the *Times* directing

attention to recent encroachments upon Burton's, *olim* Great or College, Court, Chelsea. Lying between Royal Avenue and St. Leonard's-terrace, this once open space was lately leased to the General commanding the Home District for a soldiers' cricket-ground, to the exclusion, for all practical purposes, of the public. A Treasury grant of 800*l.* was made for preparing the ground; two pavilions have been set up; and, unless the matter be vigorously handled, there is much danger that the ground will soon be quite converted into a private enclosure. It is to be observed that the grove of trees and the Royal Avenue bear, north-west, towards Kensington Palace. The story runs that Queen Anne intended to make a road and avenue from the Soldiers' Hospital, across the Court and the fields beyond, to her home at Kensington. The Court extends over about twelve acres, and was bought with the public funds in 1682.

THERE is an amusing paper in the current number of the *Nineteenth Century*, by the Rev. Dr. Jessop, on the "Trials of a Country Parson," in the course of which he describes a visit he lately paid to a church "to which a very hurricane of a man had been recently appointed, and which he had already set himself about to restore":—

"He knew no more about architecture than I do about Sanscrit, and less about history than I do about chemistry. He had a small army of bricklayers picking and slopping about the sacred edifice, tearing down this and digging up that, and smalming (a good word this) over the other. And this worthy had not even consulted the parish clerk! 'Of course, you have a faculty for this?' I suggested. 'Not I! Faculty, indeed! I have made up my mind to have nothing whatever to do with any officials or professionals of any sort or kind; I am my own architect!' Now, if a man chooses to be his own tailor, nobody will be much the worse, and nobody will much care; but when a man sets himself to 'restore' a church by the light of nature, it is a much more serious matter, and it is almost beyond belief what a brisk and bouncing young fellow, with the best intentions and an immeasurable fund of ignorance to fall back upon, can do without any one interfering with him. You tell him that he will get into a scrape, that the bishop will be down upon him, that there are such things as law courts. He smiles the benevolent smile of superior wisdom, and dashes on with heroic valour. If he calls himself a Ritualist, he gets rid of the Jacobean pulpit, or the royal arms, or the Ten Commandments, and sets up a construction which he calls a reredos, all tinsel, and putty, and papier-mâché, hurls away the old pews before you know where you are, nails the brasses to the walls, sets up a lectern, and intones the service, keeping well within the chancel, from which he firmly banishes all worshippers who are not males. As for that gallery at the west end where the singers used to sit for a couple of centuries, and never failed to take their part with conscious pride in their own performances, that is abomination in his eyes,—that must go of course, 'to throw out the belfry arch, you see, and to bring the ringers into closer connexion with the worship of the sanctuary.' 'I love to see the bell-ropes,' said one of these dear well-meaning young clergymen to me. . . . But if an energetic young reformer calls himself an Evangelical he is, if possible, a more dangerous renovator than the other. Then the axes and hammers come in with a vengeance. None of your pagan inscriptions for him, teaching false doctrine and popery. None of your *Orate pro anima*, none of your crosses and remains of frescoes on his walls; St. Christopher with the Child upon his shoulder wading through the stream, St. Sebastian stuck all over with arrows, or St. Peter with those very objectionable keys. As for the rood-screen, away with it. Are we not kings and priests? If you must have a division between the chancel and the nave, set up the pulpit there, tall, prominent, significant; and if the preacher cannot be heard, then learn the lessons which our grandfathers taught us, and let there be a sounding-board. The serious part of all this passionate meddling with the *status quo ante* is that any young incumbent can come in and play the wildest havoc with our old churches without any one interfering with him. The beneficed clerk is master of the situation, and is frightfully more so now that Church-rates have been abolished than he was before. It is no one's interest to open his mouth: is he not inducted into possession of the sacred building, and is he not, therefore, tenant for life of the freehold? As long as he makes himself liable for all the expense, it is surely better to let him have his way. 'I ain't a-going to interfere,' says one after another; and in six weeks a church which had upon its windows and its doors, upon its every stone and timber, the marks and evidence which constituted a continuous chronicle, picturing,—not telling,—a tale of the faith and hope, and folly and errors, and devotion and sorrow, and striving after a higher ideal, and painful groping for more light in the gloom,—a tale that goes back a thousand years; a tale of the rude forefathers of the village world, which still regards the house of God as somehow its own,—in six weeks, I say, all this is as effectually obliterated as if a ton of dynamite had been exploded in one of the vaults, and the genius of smugness had claimed the comminuted fragments as her own."

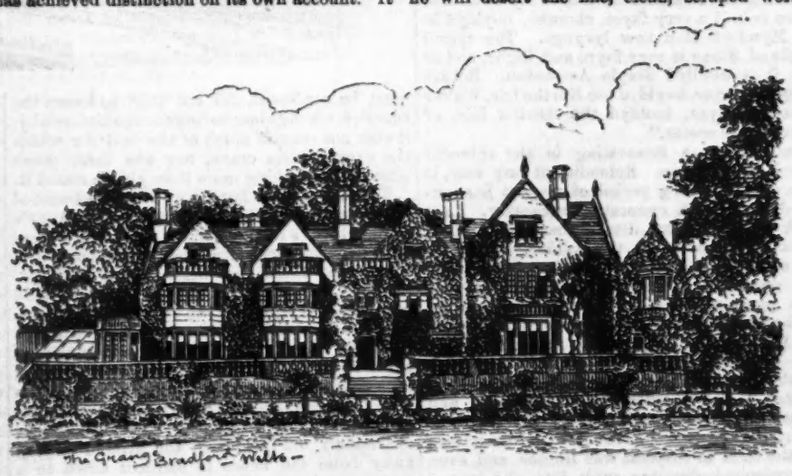
This, it is needless to remark, is only one side of the picture and of the question, and we only quote it as such. To have one side put with picturesqueness and point is, however, worth something,—provided we always recognise clearly that it is only one side.

IT appears that the southern colonies are making a decided move in favour of exploration of that unknown waste, the Antarctic region of this planet. The Antarctic Committee which has been, according to the *Times*, appointed by the Royal Society of Victoria and Royal Geographical Society of Australia, has memorialised the Premier of Victoria in favour of offering bonuses to stimulate Antarctic research. Bonuses will be given for the conveyance of scientific observers into south latitudes, special bonuses for oil from fish caught south of 60 degrees S., and further ones for passing 70 degrees S. A flying survey of any coast lines not in the Admiralty charts is desired, and the discovery of new waterways and harbours for wintering. We have no doubt that before long we shall hear, however, of a special expedition for the exclusive object of Antarctic research. Grumblers will say that "no practical advantage" is to be derived from it, and no doubt the lives of adventurous men will be sacrificed to the fascination of South Pole exploration as they have been to that of the North Pole; but it is likely to go on for all that, and we wish it good speed. That restlessness of the human spirit, which can never be content till we know all about our globe that is to be known, is one of the things that makes life worth living; and any who may perish in the attempt to increase our stock of knowledge will at least lie in honoured though perhaps unknown graves.

THE ARCHITECTURAL ASSOCIATION EXCURSION.

RESUMING our account of the Excursion of the Architectural Association, the first place visited on Wednesday, the 17th inst., was South Wraxall (see phototype illustrations in last week's *Builder*). This is a very interesting manor-house of two styles, Perpendicular and Elizabethan. The house is now, and always has been, in the possession of the family of Long, which emerged into history under the patronage of the Hungerfords of Farleigh, but which has outlived that race, and has achieved distinction on its own account. It is said that one of my Lord Hungerford's suite in the beginning of the fifteenth century was a tall fellow called Long Thomas, or according to another authority, Henri le Preux. This adjective "long," by dint of constant use, was finally adopted as a surname, and Long Thomas became Thomas Long, or Henry Long, according to the other authority. Whichever may be right, there seems little doubt that the son of the founder of the family began the manor-house, which was further enlarged by his great-grandson, Sir Thomas Long, about the year 1500. The means of dating his work are afforded by a heraldic device,—a marshal's lock,—which Sir Thomas was the first of the family to display, he inherting it, as it were, from his mother. The cognisance once adopted was freely used afterwards, and appears in the work added a hundred years later, when the somewhat straggling Perpendicular in which Sir Thomas worked had given way to the bold Renaissance of his great-grandson, Sir Walter. The chief features due to him are the fine drawing-room and the chimney-pieces of several other rooms. Three of these were illustrated in our last number, and the bold and original nature of the work is evident at a glance. The designers of this and of much other Renaissance work seem to have aimed at effect: their work is strong if not refined. Sometimes it is both; but any way preferable to the tame proprieties of a later date. The drawing-room is a very interesting example of an alteration of existing work. Sir Walter widened the old room by 4 ft. or 5 ft., but retained the old roof and wall plate. In order to do this he left or built a large mass of masonry projecting from one side to carry the plate; this he ornamented with niches and clothed with panelling, thereby converting it into an agreeable feature, and one which lends much interest to the plan of the room. Then, at opposite corners of the apartment, he made great windows of many square-headed lights, he covered the old timbers with a fine plaster ceiling, and, behold, a room such as men love to look upon. Unfortunately, it is a thoroughfare room in two directions, and this mistake in planning, combined with other inconveniences of a similar nature, no doubt led to the disuse of the house as a family residence. Its emptiness, however, enabled the excursionists to sketch and measure without let or hindrance. One drawback an empty house brings with it, and that is, that the garden is neglected. At South Wraxall this is the case, but the flagged paths and the great stone piers (see illustration in last week's *Builder*) show what possibilities there are.

In great contrast to South Wraxall is Kingston House at Bradford-on-Avon (see view in last week's *Builder*). Here we have a fine house occupied, and surrounded by beautifully-kept gardens; but Kingston House excited no interest in comparison. The fact is, Kingston House has been restored. According to the best authority, it has been restored with the utmost care; piece by piece the decayed work was taken out and replaced, the new work being an exact reproduction of the old. But with all this care it fails to attract the architectural sketcher. His aim is to get at the thoughts and ways of his predecessors at first hand, and not through the medium of facsimiles, however exact. Hence he will desert the fine, clean, scraped work,



The Grange, Bradford Wilts.

beautiful though it may be, and content himself with some dirty, chipped affair, whose very dirt and chippiness attest the hand of Time at each glance the sketcher raises towards it.

The town of Bradford-on-Avon itself is very picturesque, owing much of its charm to its situation on the side of a steep hill, and some, perhaps, to the fact that in its early days it

became the home of weavers from the Low Countries. Its most remarkable monument is the celebrated Saxon chapel, which within the last fifteen years has been discovered and rescued from oblivion, and is now carefully attended to and duly appreciated. It is, however, a building which would better grace an account of the doings of an archæological society than of an excursion of sketchers. As to the church, it may be said of this as of many others, that interest may be extracted from any church dating from Mediæval times, even though it offers little for the pencil to note. The other principal features in the town are the Tithe Barn and the Bridge, both of which, as well as the Saxon chapel, we illustrated last week.

At Westwood, where the party went next, they found a church with a beautiful panelled tower and a corner stair-turret carried up, and crowned with a crocketed stone cupola. Inside some fragmentary glass attracted attention, as well as a wooden pulpit, dated 1607, and a very florid altar-rail, or low screen, of the time probably of Charles I. The adjacent manor-house, though retaining little internal work, has a picturesque exterior, and, combined with the recessed windows of the excellent north aisle, or chapel, and the panelled tower, forms a group of great architectural interest.

On Thursday, the first resting-place was Great Chalfield Manor-house, of which we gave an illustration last week. In some respects it recalls South Wraxall, from which it is distant about three miles; but the work here is of a slightly better character, although a little later. Nothing beyond the exterior remains, and since it was illustrated by Walker some part has been pulled down; but the front of the house is left, and so are the ranges of farm buildings, as well as traces of the moat, and of the fine stew-ponds. It is a place well worthy of study, if only for the plan of the whole premises, which may be said to include the church, for it serves few people besides those living in the Manor-house.

Soon after leaving Chalfield an accident occurred to one of the two vehicles conveying the party, whereby the day's arrangements were somewhat upset, Keevil being omitted altogether, and a shorter time allowed for the remaining buildings. Of these, Steeple Ashton was the first. The village takes its name,—not from its church, which has only a tower,—but from the staple, or market, which formerly existed here. The church (of which we gave a small view last week) is, at first sight, an imposing one, but a closer inspection shows the detail to be very coarse and of unpleasing proportions. The church has had a spire twice, but it fell down twice, and, taking this as an intimation of a Divine objection to such a feature in that village, those concerned decided not to attempt to reconstruct it. Leland gives the popular derivation of the name, and mentions the spire. He says (*circ.* 1536), "It is a praty litle market Towne, and hathe praty Buyldinges. It standithe muche by clothiars. There is in it a very fayre churche, buyldyd in the Mynd of Men now lyvynge. The spired Steple of Stone is very fayre and highe, and of that it is cawllyd Steple Assheton. Robart Longe, clothyar, buyldyd the Northe Isle, Walter Lucas, clothyar, buildyd the Sowthe Isle, of theyr proper costes."

But far more interesting is the splendid church of Edington. Splendid, at any rate, it once was, for a long period of neglect has rendered a thorough restoration necessary. Last week we gave some illustrations and a short historical account of the edifice, which, on the occasion of the visit of the Association, was described by Mr. J. D. Sedding, who, in a paper which did justice to the beauties of the place, uttered rank heresies in respect of William of Edington's connexion with the building thereof. Certainly the work ascribed to the same man here and at Winchester is very different in character, and apparently in date, and possibly the heresy of to-day may become the true faith of to-morrow; but the time at disposal was limited, and even archæological disputes sank into the second place in the presence of such beautiful work as there was on every hand. The original structure presents windows of an excellent type, fair canopied niches, supported by exquisitely-carved figures, whose drapery is rendered with the masterly arrangement and the delicacy of execution which mark the period, and which may well be the despair of modern carvers. It also contains much later work, equally delicate and refined, although belonging to what some people are pleased to call the Pagan style of the Renaissance. The pulpit, reredos, and font-cover are examples, and are hardly less notable than the great tomb to Sir Edward Lewis, who died in 1630. On an altar tomb lie the beautiful figures of Sir Edward and his wife, while above them hovers a cherub offering the crown of life. The cherub hangs from the panelled soffit of the flat canopy, which is supported by columns. The recess is partly screened by curtains, which are drawn back and tied round the columns. Above the canopy rises a tablet carrying the arms, while below the recumbent figures kneel effigies of five children. The panelled ceilings are also Jacobean in date, and though poor in detail they give a rich effect to the church, and are of great historical interest. It is earnestly to be hoped that in the restoration now proceeding every effort will be made to preserve them. Three other important monuments deserve notice, one is the Cheney Chantry, or what remains of it, in the nave; another is a Late Gothic tomb to an unknown ecclesiastic, in the south transept. It is elaborately and richly coloured, and from the rebus which adorns it in various places,—a sprig of bay and a tun, or barrel,—it is supposed to commemorate one John Baynton. A curious feature is that the recumbent figure rests its feet not on an animal, as is usual, but on a barrel. The third monument is one by Chantrey, of which we reproduced a photograph last week. It is to the memory of Sir Simon Richard Brissett Taylor, who died in 1815, and it was erected by his sister, Martha Taylor, who died in 1817. As is always the case with a good building, the time allotted to Edington passed all too quickly, and it was with regret that the party moved away towards Westbury. The church here, it

must be confessed, did not tend to lessen the regret, for though interesting enough historically, it does not contain much of the food for which the excursionists crave, nor was there much time to do anything more than glance round it.

The last day, Friday, began with the house of Hamswell, said to be a corruption of St. Anne's Well, which is in an adjoining field. Its waters are esteemed very efficacious in diseases of the eyes. The house once belonged to the Whittingtons, and two heraldic creatures, said to be cats, grin out from the ivy over a garden door. There is not much architecture visible through the thick leaves of the ivy, but the front porch is clear. It is late in date, and is surmounted by a broken pediment, in which the parts of the pediment are so small as to be what physiologists call rudimentary organs. The garden is charmingly old-fashioned, the ground sloping away from the house in terraces down to a Dutch canal, along the straight sides of which runs a broad grass walk with an arbour at each end. A very short stay was made here, and then the party went on to Marshfield. Their way led them along the ridge of a hill with a wide view on either side; to the south-east lay the winding valley where St. Catherine's Court House lies hidden, to the west stretched a broad plain, right away to the Severn, beyond which rose the hills of Monmouthshire and the hazy mountains of Wales,—a vast view, recalling in extent and character the panorama from Edge Hill seen on the Banbury excursion. Marshfield was next visited. It is a long, straggling, little town, dating principally from the time of William and Mary. When once there, no doubt something may be found to sketch, either at the church, the almshouse, or in the street, but there is nothing of commanding interest. Very different is Cold Ashton, where the church and manor-house abound in useful scraps. The church was built by one Thomas Key, whose rebus, a T and a key, occurs frequently. The pulpit, which is recessed in the wall, has a crocketed canopy over it, and is approached by the same steps that used to lead to the rood-loft. It is figured in Dollman's book. The manor-house dates from early in the seventeenth century; it was probably built by a John Pipwell, who lived there in 1608, and who subsequently sold it to John Gunning, Mayor and Alderman of Bristol, who was alive in 1645. He built the elegant stone gateway in the front, and adorned it with his arms,—three culverins or guns. The house is now a farmhouse, and has been altered somewhat to suit its changed purpose, but a great deal of Jacobean woodwork is left, as well as some plaster ceilings, some of which bear exquisite designs in low relief. The view from the front of the house across the valley of St. Catherine's is very charming, and gives Cold Ashton an advantage over most contemporary houses, for they were usually built down in a hole with little prospect beyond their own beautiful gardens. From Cold Ashton,—Ashton Frigida, as it is called in fourteenth-century documents,—the way lay down the hilly road that winds along the wooded side of St. Catherine's valley to the church and court-house of that name. The house is said to have been built by Prior Cantlow in 1499, but it looks later; and the porch no doubt dates, as generally stated, from the early days of Charles I. It is unusually good in design. The angles are canted, and the canted side contains a niche on the ground-floor, and on the upper floor one light of a mullioned window that makes the circuit of the whole projection. The doorway is round-headed and flanked by columns, while the sides of the porch itself are pierced with an open arcade of three small arches carried on rounded stone balusters. The whole is crowned with an open balustrade. The house stands on the side of a hill, and is surrounded with well-kept gardens. The approach is by a broad gravel sweep and flights of grey, timeworn steps, through an ivy-covered arch on to the level space in front of the porch. The house faces sideways, and beyond it the garden continues in smooth lawns and long lofty terraces, with stone balustrades, backed by a high hedge of trimmed yew, through which a small arch gives a glimpse of further walks. When the present owners came here the place was dismantled and in decay, but through their energy and good taste it is now panelled in keeping with its style, and abounds in nice bits of woodwork, which, though not native to the place, are by this time thoroughly naturalised. The church,

which is reached by part of the same path that leads to the house, is a small structure, very carefully kept up. It has remains of some stained glass which has been worked up into the east window in a very clever way, and matched with new glass hardly distinguishable from the old. The east and west walls are lined with tiles of harmonious colours, and the whole effect is as pleasing as well may be.

This was the last place on the programme, and it formed a pleasant termination to a pleasant week. The party returned to Bath with the vision lingering in their minds of the ivy-clad house, the soft sward of the stately terraces, and the lichen-strewn steps, all embosomed in trees and removed

"Far from the madding crowd's ignoble strife."

THE BRITISH ARCHÆOLOGICAL ASSOCIATION.

CONTINUING our report (see p. 282, *ante*) of the Liverpool Congress of this Association, at the evening meeting on Wednesday, the 17th inst., a paper was read on "Old Liverpool China," by Mr. W. H. Cope, F.S.A., in which the rise and progress of this old local trade were detailed, and reference made to the examples in the Mayer collection, presented to the town in 1867.

A second paper followed on the "Manx and Cornish Languages, considered Historically," by the Rev. W. S. Lach-Szyrma.

Thursday morning, the 18th, proved to be very wet, and the party was considerably thinned in consequence. Still, a goodly number proceeded by rail to Runcorn, whence carriages in readiness conveyed them to the ruins of Halton Castle, once a place of considerable strength, on an elevated hill of conical form, but now only a mass of broken walls remains, forming a conspicuous feature for many miles, the view from the castle hill being one of great extent and beauty.

A hasty perambulation of the walls was made through the rain, after which the history of the building was related by Messrs. Ed. M. Hance and M. Morton, while Mr. Loftus Brock described the architectural features, and particularly referred to the existence of some walls, now portion of the inner ballium, built of large blocks of stone without mortar, having an archway cut out of a single stone. These may probably be of Roman date. The site was occupied by the Ancient Britons and by the Romans, for whom it was an important outpost to guard the road to Warrington. It was a place of strength in Norman times, and finally ceased to exist at the conclusion of the civil wars, when it was dismantled.

Fine weather rewarded the visitors during the remainder of the day, and progress being resumed, at Warrington the local museum was inspected. There is here an interesting collection of antiquities, mostly acquired from local discoveries by the late Dr. Kendrick, an old Associate. Here are most of the articles discovered at Wilderspool, most probably the *Condate* of the Romans, including a curious mask of clay, called a tragic mask, although its appearance is very much at variance with its name. Here are also portions of a curious encaustic tile pavement, found not long since on the site of the old Friary church, at the junction of Friars' Gate with Friars' Green. A plan of the discoveries then made is also exhibited. The church had a long chancel, 75 ft. long by 24 ft., a very short nave, 27 ft. wide, divided from the former by a narrow space, on which was once, doubtless, one of the slender steeples so common to churches of Friars. There was also a singular transept at the north side, larger than the nave, since it was 64 ft. by 44 ft. wide, divided into a central nave, with two side-aisles. The building has entirely passed away, the ground plan being only preserved by the few relics exhibited and by a series of photographs.

After luncheon Sir J. A. Picton pointed out two remarkable specimens of black and white houses in the Market Place and elsewhere, after which progress was made along the old Roman road, now occupied for the most part by the main highway to Winwick, where a justly celebrated church was thrown open for inspection. The building stands on high ground, and its tall tower and spire are visible for a considerable distance. It is built of yellow stone and is mainly of the fourteenth century, the arcades of the nave being of different designs on each side, that on the north being the most elaborate. The chancel is of stately proportions, but very much restored. An inscription around the S.W. angle of the exterior records the death of St. Oswald and his connexion with the parish. There is a stone covered with interlaced patterns of Saxon date now placed just clear of the east end of the church. It is the two arms of the upper part of an enormous cross. The patterns are of much beauty and interest. There are no portions of the shaft remaining.

A lengthy drive along the Roman road brought the party to Wigan, where, on arriving at the Municipal Buildings, an address of welcome was read by the Mayor, who afterwards invited the inspection of the two maces of the Corporation, one of which is a handsome work of the reign of Charles II. There are also a fine sword of state and other articles of interest, all of which, with the various charters, were laid out for the party.

The beautiful church of Wigan was visited, and a short stay made there, all too short for its examination. It is a fine building of the fifteenth century, with good details, thoroughly and well restored. The tower is on the north side of the north aisle opening out from the building. Short as the visit was, it seriously curtailed the length of the evening meeting at the Walker Art Gallery, where a paper was read on the Calder stones, by Mr. C. Romilly Allen, F.S.A. (Scot.), Rhind Lecturer.

Friday's proceedings were devoted to a survey of some of the works of Liverpool of to-day, and had more reference to the realisation of what is going on in the busy world of the town than to works of the past. Still, not a little of antiquarian lore was put before the members. The proceedings commenced by a survey of the site of old Liverpool Castle, which is now in a great measure occupied by the present St. George's Church. The happy idea of marking out the extent of the old building had occurred to Mr. E. W. Cox, and he accordingly carried it out by having the outline of the circular bastions of the walls indicated by white markings on the surface of the modern roadway and pavement, crossed and recrossed as they are by tramways. The outline was seen to great advantage, and inspected not only by the members of the Congress, but by a great number of citizens, until the lines were obliterated by the ceaseless traffic.

St. Nicholas Church, which stands on the site of the old parish church, was inspected, and the tower and spire of open work, erected early in the century before the period of the Gothic revival, received its meed of praise. It was explained by Mr. Hance.

A visit was then paid to the enormous block of buildings, the Waterloo grain warehouses, where the party was met by the engineer, Mr. A. G. Lyster. The buildings have capacity for the storage of 68,000 tons, the floor space comprising eleven acres. The arrangements for the discharge of cargoes and the distribution of the grain were indicated and explained, and one of the enormous 100-ton cranes was put in motion. The hydraulic pumps are of great power and excellence.

A visit was next paid to the White Star steamer the *Britannic*, which had only arrived in the Alexandra Dock from New York on the previous evening. Here they were received by Captain Parsell, the commander, and Captain Hewett, the marine superintendent. Embarking on the Dock Board's tender, the *Hodgson*, a number of the docks were steamed through, and on being transferred to the *Vigilant* tender a visit was paid to the Cunard steamer, the *Umbria*, which lay in mid-water on the Mersey.

After inspecting this fine vessel, the *Vigilant* took the party to Eastham Ferry, where carriages being in readiness, the party proceeded to Carlett Park, the handsome modern residence of the Rev. W. E. Torr. There is a beautiful little chapel adjoining the mansion, of recent erection, from the design of Mr. Douglas, which was inspected, after which the carriages conveyed the party to Eastham Church. Here Mr. Torr read a paper on the history of the parish, and Mr. Loftus Brock described the architectural features of the building, attention being drawn to the tower and spire, which are of sturdy proportions of fourteenth-century date, and with the peculiarity of having gablets at the angles of the spire instead of pinnacles. The old font was also pointed out as being of Saxon date, as is also that of the adjoining church at Bebington. Both have mouldings of early design, and there is no carving on either.

In the evening a *conversazione* was held in the Walker Art Galleries, all of which were thrown open to the visitors, as well as the Picton Reading-room. The party was received by Sir J. A. Picton and Miss Picton, and by members of the Art Committee. A paper was read during the evening on "A Victorian Era in Romano-British History," supported by Coins and Inscriptions," by Mr. Thomas Morgan, F.S.A.

The sun shone brightly on Saturday when the inspection of the Mayer Collection at the Free Public Museum took place. This magnificent gift to the town was made by Mr. Mayer during his lifetime, in 1867, and it fills, with some additions made during recent years, the whole of a large galleried building. There is a good representative collection of ancient Egyptian, Babylonian, Assyrian, and Etruscan antiquities, arranged on the ground floor. The central galleries contain objects of Mediæval times, and those of later date are placed in the topmost gallery, the attention of the visitor being thus directed upwards from the works of earliest date. Mr. Mayer was for many years an active member of the Association, and the visit was not merely one for the gratification of the inspection, but as some sort of tribute to the memory of an old member. Among the earliest exhibits is a small collection of goldsmiths' work of great beauty, mostly Etruscan. There are also two silver vases from Canino; other notable objects are several dyptichs of Roman and Byzantine date, a set of toys from the grave of a Roman child, from Cologne, a series of moulds for the production of Samian ware bowls, many examples of Greek and Roman glass, a fine Nola ware black dish, modelled in high relief, and a band of linen 17 ft. long, woven with an elaborate pattern. It came from a mummy, and was found at Memphis. Here is also the Faussett collection of Anglo-Saxon antiquities which Mr. Mayer fortunately purchased after it had been declined by the British Museum. It is admirably arranged, a separate compartment being provided to contain all the articles found in each grave. Among the articles is the celebrated Kingston Fibula, doubtless the finest Saxon brooch in existence. Its all but perfect condition and brightness render it difficult to realise that it is about 1350 years old. Not to speak of the ethnological portion, it may be sufficient to say that the third gallery contains a fine collection of Old English and German wares, encaustic tiles, a splendid display of old Wedgwood ware, Dresden china, and particularly of Old Liverpool pottery.

The members and visitors left the museum and proceeded, by the 11·45 train, to Burscough to inspect the ruins of the priory, and also the excavations now being made by the Earl of Derby to determine the extent of the church in which so many members of the Earl's ancestors were interred. Only two of the piers of a fourteenth-century tower remain, but the excavations have already revealed sufficient to show that the church consisted of an aisleless nave, chancel, and transepts, and that at some later date than the original building a chapel had been built in the angle of the north transept and nave, opening into both of these portions of the church by arches. The party was met by the Earl's agent, who exhibited an early chalice which had been found during the excavations, and Mr. Loftus Brock pointed out a great number of masons' marks which had been laid open to view by the removal of accumulated earth.

Progress was then made for the fine large church of Ormskirk, which was described by the Rector, Sir J. A. Picton, and Mr. Brock, who referred to the local tradition that the large western tower was erected after the Dissolution to contain bells from Burscough. The tower is evidently built of masonry worked for some other purpose. The church is remarkable for having a tower and spire at the west end of the south aisle, in addition to the tower.

After luncheon at Ormskirk, a visit was paid to the beautiful old church at Halsall, which was described by the Rev. Canon Blundell and Mr. Brock. It has a tower and spire of fourteenth-century date, the latter springing from an octagonal belfry, as at Ormskirk. The most remarkable feature in the church is its very fine chancel, a work of the close of the fourteenth century, the design, at least of the upper part, having fine window tracery almost Perpendicular in style. There are two elegant

turrets north and south of the chancel arch. The church has recently been admirably restored by Messrs. Paley & Austin.

After inspecting some curious ruins in Canon Blundell's grounds, of fourteenth-century date, a visit was paid to Lydiate Chapel, passing on the way the curious old half-timbered Hall of Lydiate and an old stone cross in the grounds of the new R.C. Church. The chapel, which is in ruins, consists of a pinnacled tower, a south porch, and a nave, there being no defined chancel. There are no windows on the north side. The building is of late fifteenth-century date, and in its state of ruin, with its partial covering of ivy, makes a pretty object in the landscape. The day was now drawing to its close, but the celebrated church of Sefton being in the programme a visit was paid to it, although by doing so it was impossible to catch the train back in time to hold the closing evening meeting. The building possesses the finest screen work and carved pews to be found in the country. There is also a curious incised slab dated 1450, and the tower and spire form a portion of an earlier church. The church is dated 1511, but many of the windows are dated 1542 and later years, having been erected by various donors. None of the windows have cuspings to the tracery.

Monday last, the 22nd, was one of the extra days of the Congress, but it was, in its results, the most important of all, for it was devoted principally to determine the age of the walls of Chester, recently said to be no older than the time of James I. or Charles I. A large party proceeded from Liverpool by an early train to Chester, and on arriving there they paid a visit to the ancient Church of St. John, now sadly shorn of its fair proportions by the fall of its lofty tower, until within the last few years one of the most conspicuous objects in the city. The party were surprised to find that no attempt has been made to rebuild the tower, the ruins of the ground-story of which alone remain. On the contrary a curious gabletted structure has been erected at the east end, which is in strange contrast with all the ancient work around it. The Rev. S. Cooper Scott conducted the visitors over the building and related its history. After inspecting the grand interior of the church, the ruins of the choir of the Collegiate Church were inspected, and afterwards the Chapter-house, which, like that of Llandaff Cathedral, is a square building on the south side. It is now devoted to the storage of a great many remarkable fragments taken from the ruins, among which none exceed in interest some sepulchral crosses of Saxon date. Proceeding to the Cathedral the Ven. Archdeacon Barber, in the absence of the Dean, received the party, and conducted them over the whole of the building, the window recently completed in the south transept, formerly St. Oswald's Church, being greatly admired.

A paper was subsequently read by Mr. Roach Smith, F.S.A., in which a recent theory with respect to the late date of the walls of the city was criticised, and the reasonableness of the Roman origin was insisted upon. It is known that the walls are built without either mortar or bonding courses of tiles, and analogous instances were pointed out, not only in England but in France. Mr. Loftus Brock followed, and referring to a series of excavations which have been made in various positions, he said that they revealed a uniformity of design wherever the ancient wall had been opened out. The wall consisted of huge blocks of red sandstone, in some cases 5 ft. in length, put together without mortar and presenting tooled patterns on the outer face. A chamfered plinth has been met with. The work is Roman in every position where the excavations have been made. An enormous quantity of carved and moulded stones have been found built into the Roman wall in Roman times. These dispose of two objections that have been made to the early date claimed for the wall,—the first being the absence of mortar. These stones are for some series of earlier buildings, but none of them show any trace of mortar. If there was none in these there was no need for mortar when put to their second use in the city wall. Again, a part of the latter has a moulded cornice, which has recently been stated to be no earlier than the time of James I. Its counterpart, however, of Roman date has been found built up in the centre of the city wall, showing that the former is Roman also. Before proceeding to a survey of the walls under Mr. Brock's guidance, a large number of the city charters were inspected, Mr. Earwaker pointing out many curious items of information, his comments being supplemented by Mr. de Gray Birch, F.S.A., the importance of publishing the charters and the curious books of proceedings being strongly urged upon the Corporation. Proceeding to the excavation at the Kaleyard, the wall was found to be of massive blocks resting on a bed of puddled clay and stones, and having a chamfered plinth. Another excavation at the extreme end of the Cathedral close reveals similar construction, and this spot was chosen since the wall has only recently been freed from abutting buildings which have hidden it from soon after the Siege of Chester. Proceeding to the principal excavation, north of the Phœnix Tower, an enormous mass of cornices, &c., were laid out for inspection just as they had been taken out of the wall. The wall itself is of similar construction as already observed. The excavation on the Roodeye was then inspected. Instead of a single row of massive stones resting on a quicksand, as has been recently stated, the huge wall was found to go down to a considerable depth. The excavation has been carried down for 13 ft., and no bottom has been found. The excavation had to be suspended owing to the rising of water.

Sir James Picton, at the last point, summed up the evidence which had been laid before them by Mr. Jones, the City Surveyor, and Mr. Brock, and said that it was impossible to consider the remarkable work they had inspected as anything else than of Roman date. In doing so, he appeared to express the opinion of the meeting. A visit was then paid to a plain Roman arch, the jambs of which are embedded in masonry of Norman date, at the angle of the old castle keep. After which the Museum was visited, and its interesting collection of Roman antiquities inspected. The two Roman columns belonging to the large building found in Bridge-street, about fifteen years ago, were then seen. These remain *in situ*, and possess circular bases, shafts, and large carved capitals.

The party then returned to Liverpool, to proceed on Tuesday to Lancaster, and on Wednesday to Furness Abbey.

Thus has ended a pleasant and agreeable meeting, which has done good service if only in bringing additional information to bear upon the question with respect to the age of the walls of Chester.

NOTES FROM OXFORD.

The University is, at the present time, increasing to a large extent the number of its academical buildings. With one or two exceptions these are all Renaissance in style, forming a pleasing contrast to the, in many places, unsatisfactory detail of the older work.

First may be mentioned the further additions to the Examination Schools, the present building being placed just east of Mr. Jackson's fine block in the High-street, and although forming a separate design, is joined to the larger building by a low wall. It will be used for the "unattached" students of the University, and contains a fine examination-room on the first floor, approached by a wide staircase, besides the usual rooms and offices. The High-street front has three picturesque gables; but perhaps the best "bit" is the charming oriel corbelled out at the south-east angle and looking into the quadrangle of the schools. When this is finished and has acquired the tone of the larger block, it will form, perhaps, the most striking group of modern work in the city.

At Trinity College the President's house, which, with the Chapel, forms the north side of the new quadrangle facing Broad-street, is being covered in. This, as well as the finished eastern block, is in what may be termed the "Kirby Hall" type of Renaissance, and very happy the result seems to be. The stonework of the east block has, like the schools, toned down in a very satisfactory manner, including the stone slates, which are so much seen on both old and new buildings, the old roofs having been chiefly covered with slates from Stonesfield in the neighbourhood, while in the new buildings slates from the Cotswolds have been used.

Brazenose College is also making further additions, the work now being carried out having a considerable frontage to the High-street just west of St. Mary's Church. This, which will be the Principal's House, will form the south side of a new quadrangle, of which the west side has already been built. A picturesque Common Room, which reminds one of the "Tribunal" at Glastonbury, is being finished internally. At present the Principal's House is scarcely above ground, and demolitions are still going on to make room for the new work, which will form a fine addition to the High-street.

Hertford is rebuilding its hall on the west side of the quad facing the old schools, and this will be in a style harmonising with the present buildings, which date chiefly from the eighteenth century, with additions by Mr. Garbett in 1820.

So far all the work noticed is being carried out from Mr. Jackson's design.

Mr. Champneys's Nonconformist college, to be called Mansfield College, near the parks, and of which drawings were in this year's Academy, is now just above ground, portions of the chapel plinth being in position, but it will doubtless be some little time before the works are sufficiently advanced for the general effect to be properly realised.

Magdalen tower has two of its pinnacles enveloped in scaffolding, as they were in an unsafe condition and required rebuilding. This tower is probably one of the best bits of masonry in Oxford, and does not seem to have been affected by the weather and blackened, like most of the university buildings. The stone used in these, Headington, seems to have been badly chosen, and requires constant attention.

Of lately finished buildings it is hardly necessary to speak, but a day will be well spent amongst the new buildings of the University generally. The most important are Mr. T. G. Jackson's work at the Schools, Trinity, Corpus Christi (a picturesque block nearly opposite Merton Chapel), Brazenose, Lincoln, and Somerville Hall. In George-street is the High School for Boys, with an imposing entrance and picturesque louvre, and on the Banbury-road just beyond St. Giles's Church, the High School for Girls, in the Queen Anne style, and built of brick, both also by Mr. Jackson.

At the end of Broad-street is Mr. Champneys's Indian Institute, with its boldly-treated angle staircase tower. This is only partially completed, as it is intended to extend to some considerable distance southward facing the Clarendon building.

The north side of St. John the Baptist's Quad, at Magdalen, is being completed by Messrs. Bodley & Garner, who have also designed the new entrance from High-street and the new quadrangle westward.

In Holywell-street will be found some further additions to New College, by Mr. Champneys, in the Perpendicular style, including a Fellows' house and students' rooms. There are some good windows on the south side facing the grounds.

The neighbourhood of Oxford has been extending rapidly, especially the northern districts, and the general design of the villas is more satisfactory than is generally found, an absence of unmeaning ornament being a noticeable feature in the work. On Headington Hill, so well known for its fine general view of the city, two or three large private residences have been and are being built.

On the left-hand side of the Cowley-road is a very simple but charming block of buildings, known as Nazareth House, and built by Mr. Tasker. It is in brick with stone dressings, having a chapel and sacristy standing on a substructure, and a block westward containing rooms for children and the "aged and infirm." The chapel and upper rooms being approached by a stair in a semi-octagonal turret, which projects from the middle of the south front.

There is also at Cowley a new church of SS. Mary and John, the north side of the nave being an effective piece of Early Decorated Gothic.

Competition for a House of Parliament at Buenos Ayres.—The Parliament of the Argentine Republic has voted the sum of eight million piastres (1,600,000*l.*) for a Parliament House. Invitations are to be issued shortly to the architects of all countries to compete for designs. The two best designs are to receive premiums of 40,000 piastres (8,000*l.*) and 10,000 piastres (2,000*l.*) respectively. The conditions of the competition are to be forwarded immediately to the representatives of the Argentine Republic abroad. Designs and plans must be deposited with the latter by April 1st next. Ominous date!

SIR J. A. PICTON, F.S.A., ON ARCHÆOLOGY AT LIVERPOOL.

We extract the following from the inaugural address given by Sir James Picton last week as President of the Liverpool Congress of the British Archæological Association:—

When the proposal of an Archæological Congress at Liverpool was first propounded, it was received in some quarters with a smile of incredulity,—almost of contempt. What, it was asked, could there be in common between a city of mushroom growth,—all whose energies are absorbed in ships and cotton, corn, sugar, timber, and tobacco,—with the stately remains and venerable traditions of ancient and Mediæval England?

The question is a natural one, but it is not difficult to answer. More than forty generations have passed since our Anglo-Saxon forefathers first planted the sapling which has borne such goodly fruit; and within this long interval there has been no period which has not been distinguished by events having an important bearing, both locally and nationally, on the progress, fusion, and development of the English character and English institutions. A large portion of these events have left visible memorials behind, and many others lie imbedded in our traditions, laws, manners, and customs, which it is the province of the archæologist to bring out and illustrate.

In applying these remarks to Liverpool and its neighbourhood, I may observe that, although the visible remains of antiquity are not numerous, some of them are of great interest, and carry us back to periods beyond the reach of historical research. Our Congress is that of an association for the study of archæology, which, I suppose, is distinguished from the study of palæontology by its limitation to what concerns the human race; but there are cases in which the two departments are conterminous, or, rather, overlap each other, and where the events in the one cannot be understood without reference to the changes in the other. This, I think, will be found to be the case in the district with which we have to deal.

The sphere of our inquiries and observations during the present Congress will be found principally, though not exclusively, to lie in the vicinity of the estuary of the Mersey, which has been the vivifying source of the commercial progress and prosperity of the district; and here, at the outset, we are launched upon a field of inquiry which carries us back into the prehistorical ages, where, in the absence of documents, we have to grope our way in the dim twilight of tradition, and to draw our inferences from the visible phenomena presented to our observation. Dogmatism would here be out of place. We have to tread cautiously, and to frame our conclusions with modesty and reserve.

The Mersey has been from the earliest ages the dividing line between two very important districts of England. When the Romans first penetrated into the country, the northern bank was occupied by the Brigantes, and the southern by the Cornavii, two of the most powerful Celtic tribes. Under the Roman dominion, the Mersey separated the two provinces of Maxima Cæsariensis to the north, and Flavia Cæsariensis to the south. During the Saxon period, the northern merged into the province or sub-kingdom of Deira, whilst the southern side formed part of the province of Mercia. The estuary has ever since maintained its character, as indicated by its Saxon name, Mere-sea, "the boundary water."

Now, the first thing which strikes us in reference to the history of the estuary is the fact that all the other rivers along the west coast,—the Conway, the Voryd (or Clwyd), the Dee, the Ribble, the Lune,—have Celtic or Cymric names. The Roman geographers, Ptolemy and Antoninus, give these names in a Latinised form. The Mersey is not mentioned by them at all, and it has no Celtic name. Supposing the estuary had at that time existed in its present shape, such an omission would be unaccountable. We are, therefore, drawn to the conclusion that subsequent to, or during the latter part of, the Roman dominion, a serious change must have taken place in the physical features of the locality. These features themselves bear similar testimony. That there has been a considerable depression of the land along the coast is manifest upon very slight investigation. The submarine forests which extend below high-water mark on both sides of the estuary, with stumps of trees *in situ*, many bearing marks of the axe; the recorded inroads of the sea upon the land which formerly stretched much further to the westward; the fact that a large portion of the peninsula has to be protected from submergence by a costly embankment; with other circumstances which cannot here be detailed, unite to prove that the level of the land has undergone material alterations.

It has hence been inferred that previous to this change the channel of the Mersey formed a freshwater lake, extending from Runcorn Gap to Seacombe, fed by the waters of the Irwell and the Weaver, the overflow discharging itself through Wallasey Pool and across a wide extent of marshy land into the sea, not far from the present embouchure of the Dee. This seems to be confirmed by the place name, "Walla's-ey," or island, given to the rocky eminence where the church now stands. The depression of the coast, which admitted the sea into the lake, giving a new outlet, such portion of the marshes as were above the sea level would naturally silt up in the course of time, and become dry land.

To what race the earliest inhabitants of the district belonged we have no satisfactory evidence. Such relics as we possess seem to point to the pre-Celtic period, most probably to the neo-lithic age. In the year 1867 an ancient cemetery was discovered at Wavertree, near Olive Mount, in which were found a number of earthenware urns, containing ashes and burned bones. In 1859 a tumulus was opened at Winwick, between Newton and Warrington, from which similar urns were unearthed, containing burned bones and stone implements.

Another relic of the primeval period is the circle of unhewn stones, about four miles from Liverpool, called the "Calderstones," which, though not of large dimensions, is of a very interesting character. The circle stands at the intersecting point of the three townships of Wavertree, Woolton, and Allerton. The name *Calder* is evidently a corruption of Anglo-Saxon *Galdor*, sorcery, enchantment. The rough Teutonic warriors, whose superstitions were of a different character, would be awed by the mysterious Druidical rites associated with the stone circle, and would naturally ascribe them to witchcraft. These stones offer a very remarkable example of the cup and ring sculptures which have so much perplexed the antiquaries to account for and explain.*

In the dawn of history, during the Celtic occupation, the soil was comparatively barren and the population sparse. There are no visible remains of this period, and the evidence of place names is very restricted. We find two cases of *Ince* (Ynys), island; *Bryn*, an eminence; *Llandican*; *Knock-torum*; *Dove* (dhue). It is probable that the Saxons on their arrival found the district, to a great extent, waste. Several circumstances seem to lead to this conclusion. The counties of Norfolk and Lancaster are nearly equal in area. When they were divided into hundreds and parishes, probably about the end of the ninth century, some proportionate reference must have been made to the number of inhabitants. Norfolk is divided into thirty-three hundreds and 666 parishes. Lancaster has only six hundreds and sixty-six original parishes.

Again, the frequent occurrence in the names of places of the terms Moss,—Moor,—Wood,—Carr,—indicate a large extent of waste or uncultivated land.

There is no record of the date of the Saxon or Angle conquest of this district, but it most probably occurred during the latter part of the sixth century, under Ella, King of the Northumbrians, who reigned from A.D. 560 to 588. The settlers gave to the localities the usual Saxon nomenclature. There are the *tons*, the *hams*, the *burys*, the *leys*, the *ings*, the *worths*, &c. We have not many remains which can be traced to Anglo-Saxon times. Oswald, who reigned in Northumbria from A.D. 634 to 642, had a palace or stronghold at Winwick, near which he was defeated and slain by Penda, King of Mercia. This is commemorated by a Mediæval inscription on the church of Winwick. King Edward the Confessor possessed a castle at West Derby, about four miles from Liverpool, the site of which is still designated the Castle Hill.

The arrival of the Danes, and their settlement in this district on both sides of the estuary, had an important influence on the history of the locality, and forms a very interesting subject of inquiry. Little is said about it in our annals, but, by a careful comparison of the various sources of information, it is possible to put together a connected narrative of the circumstances. The Danes first appeared in English waters A.D. 787, when they harried the Southern coast. After a century of plunder they began to settle in the land, working their way westward and northward from the east coast. In 868, they had partially accomplished the conquest of Mercia, and established their head-quarters at Nottingham. In 877, the Danish fleet went west about, and plundered the coast of Wales. The tide of conquest then set in from the north by sea. The Hebrides, or Western Islands, the Isle of Man, and a considerable portion of the East and North of Ireland were captured by the Northmen. It is probable that the Danish settlements in the estuary of the Mersey date from this period,—about the latter end of the ninth century.

The Saxon Chronicle gives a very graphic narrative of the proceedings of the Danes in this district at that time. Under date A.D. 894, we read that "the Danes in East Anglia made a forced march across the country to reach their brethren in Cheshire." The record states that, having committed their wives, their ships, and their booty to the East Angles, they marched on the stretch day and night till they arrived at a western city in *Wirheal*, that is called *Chester* (Lega-ceaster). "There the army could not overtake them ere they arrived within the work. They beset the work without for two days, took all the cattle that was thereabout, slew the men whom they could overtake without the work, and all the corn they either burned or consumed with their horses every evening. That was about a twelvemonth since they first came hither over sea." There is a singular reminiscence of this expedition in the name of *Knutsford*, or *Cnutsford*, in Cheshire. This is evidently of Danish origin; yet it occurs in the midst of a purely Mercian or Anglian district. It lies, however, in the direct track followed by the Danish forces, and, doubtless, commemorates the fording of a small stream, probably in flood, by the army under the command of *Knut*, a Danish chief,—not, of course, the 'great King Cnut, or Canute. The next year, A.D. 895, the chronicle informs us, "the Danes went from *Wirheal* into North Wales, for they could not remain, because they were stripped both of the cattle and the corn they had acquired by plunder. They then went again out of North Wales with the booty they had acquired there, and marched over Northumberland and East Anglia, so that the king's army could not reach them till they came into Essex eastward."

About this time a very remarkable woman exercised an important influence in this part of the country. This was Ethelflæda, the "Lady of Mercia," daughter of King Alfred, the wife, and afterwards widow, of Ethelred, Eorlderman of Mercia. The peninsula of Wirral, in Cheshire, and the district between Chester and Runcorn, on the Mersey, formed a sort of debatable battle-ground between the Saxons, the Danes, and the Welsh, as the Britons began now to be called. At the end of the ninth century, the Britons had been pretty well driven beyond the Dee. The operations of King Edward the elder were ably assisted by his sister Ethelflæda, who restored the city of Chester, — which had remained waste and desolate for three hundred years,—extending its area, and rebuilding the walls.

Ethelflæda, to secure her possessions, erected several fortresses: one at Runcorn on the Mersey; another at Thelwall, near Warrington, to defend the passages over the river; and one at Warburton, in the direct track of the Danish invaders.

The land then had peace for seventy years, but in A.D. 980 we read that the coast of Cheshire was plundered by the Danes; and in 997, for the last time, North Wales was ravaged by a piratical attack. During this period the Danish nomenclature and institutions were becoming established in the district, which constituted an isolated Danish colony, separated from the eastern, midland, and northern Danes by intermediate districts purely Saxon. It is

* The late Professor Sir James Simpson, of Edinburgh, wrote, in 1865, an article on this subject which will be found in the Transactions of the Historical Society of Lancashire and Cheshire, vol. xvii. He carries back the origin of the Calderstones to a very remote antiquity, ascribing them to a Turanian race, which preceded the advent of the Celts or Cymry.

not difficult to trace their course. They must have arrived by sea and have left their mark in the names given to the salient points along the coast; Orme's Head, Carnarvonshire; Worms Head, Glamorgan; the islands of Bardsey, Ramsey, and Caldey; the Nase; Stackpole; the Skerries Rocks; the Point of Aire; Linney Head; with others. The Isle of Angles-ey and the Isle of Man were both originally called Mona, the modern name having been given to the former by the Danes to distinguish it as the island attached to the Angles. These invaders must have made the estuary of the Mersey their line of disembarkation, and thence have spread from each shore north and south. Evidence of this is manifest from various sources. Had they formed a single column from whatever point they had advanced, they would, like their predecessors the Saxons and Angles, have marked their course by the nomenclature of their settlements. This they have done, but the peculiarity in this case is that the place names are to a great extent duplicated, the same occurring on both sides of the Mersey. The *Thing-wall*,—the hill of counsel, the place of assembly, where the laws were made and promulgated and the armed forces mustered,—has its representatives both in West Derby and Wirral, where the eminences are still to be seen, crowned, one by a windmill the other by a modern mansion. The isolation of this Danish colony will be manifest on a comparison of the place names.

In South Lancashire the Danish names principally occur in the Hundred of West Derby. Going northward, in the Hundred of Leyland they are almost entirely wanting. Amounderness and Lonsdale are Danish; and, as we proceed into Westmoreland and Cumberland, the names of the parishes and villages are to a great extent Danish. Proceeding eastward from Cheshire, we find few or no Danish names in Staffordshire. In East Derbyshire, Nottinghamshire, and Leicestershire, which constituted the main portion of the ancient Danelagh, they are, as might be expected, predominant. The Danish names in Cheshire are principally found in the Wirral peninsula. Within these limits we find the suffix *by*, equivalent to the Saxon *ham*, such as Frankby, Pensby, Helsby, Formby, Whitby; the *dales*, Ainsdale, Skelmersdale, Birkdale; the islets, Wallasey, Bewsey, Sankey, Aldersey; the eminences, Childwall, Heswall, &c. Many of these Danish names are common to both sides of the Mersey, as Kirkby, Meols, Ness, Roby or Raby, Crosby or Greasby. The Hundreds of West Derby in Lancashire and Wirral in Cheshire are of Danish origin. Derby (Dyr-by) is the home of the wild game. Wirral (Wir-hæl) is from *Wir*, the sea, and *Halla*, a slope, which describes the district sloping on one side to the Dee, and on the other to the Mersey. The term *Hale*, with a similar significance, is found in place names in Lancashire and elsewhere. The Saxon "Hundred" was converted into the Danish "Wapentake," so called from the mode of acknowledging allegiance to the "Thing," or Court, by touching the spear of the chief, fixed erect as a sign of authority. The Wapentake Courts in West Derby and Wirral were continued down to a recent period. The most visibly prominent of the Danish relics hereabouts is the Great Stone of Thor, about eight miles from Birkenhead and two miles from Thingwall, on an eminence overlooking the Dee. The name of the place, "Thor-stane-ton," corrupted into Thurstaston, is indicative of its origin. It is a huge, isolated rock of red sandstone rising in the middle of a natural amphitheatre of four or five acres, scarped into shape by human hands. It corresponds in every respect with the recorded customs of the heathen Danes in the festivities and sacrifices annually made in honour of the God of Thunder. It is probable, however, that it was never completed. The conversion of the Danes to Christianity followed close upon their settlement in the latter part of the ninth century. The peace of Wedmore, between King Alfred and Guthrum, the Danish monarch, by which the Danes undertook to renounce heathenism and enter the Christian Church, was agreed to in 880. Soon afterwards, we find Christian churches rising up, with Danish names attached, in close proximity to Saxon communities. Such are West Kirkby, and Kirkby-in-Walley (now Wallasey), not far distant from Wood-church; and, in Lancashire, Kirkby and Orme-kirk, not remote from the Saxon Church-town. I have perhaps extended to an unreasonable length these Danish reminiscences; but they are not generally noticed, and they throw considerable light on the early history of the district.

Of the period between the Norman Conquest and the Reformation, there are many remaining relics of interest to the archæologist. The soil not being fertile, and the inhabitants few in number, this neighbourhood cannot vie in its ancient remains with the eastern and southern counties; and the rapid rise of manufactures and commerce during the last century has led to the destruction of many.

At the parcelling out of the great Norman fiefs, the peninsula of Wirral was included in the grant to Hugh Lupus, and the Hundred of West Derby fell into the hands of Roger de Poitou, a member of the great family of Montgomery. Domesday Book has no specific record under the head of "Lancaster-Scire." The southern part is included in "Cestre-Scire," under the heading, "Inter Ripam et Mersham." The northern portion forms part of Yorkshire, but the record is incomplete. We obtain from this source a concise but graphic glimpse of the state of this locality about twenty years after the Conquest. We find that the extensive manor of Derbei (West Derby), with six *berewicks* or outlying hamlets, had belonged to King Edward the Confessor, and rendered in farm a rent of "xxvi pounds and ii shillings." Previous to the survey, the grant of Roger de Poitou had been forfeited to the crown, which retained the fief in its own hands. The Hundred of West Derby was granted in fee to forty-eight thanes, all of whom were under a custom to render two *ores* of twenty-four pennies each for each carucate of land. The thanes all bear Saxon names. They were under an obligation, like the *villeins*, to maintain the king's houses, and the *hays* and *stands* in the wood. Whoever came not to these as he ought was fined 2s., and afterwards had to come to the work until it was finished. Each of them sent his mowers one day in August to cut the King's corn. If any free man committed theft, or *forestel*, or *heinfare*, he was fined 2s. According to the Domesday record, a considerable portion of this district was dense forest. In West Derby there was a wood six miles by three. In Latham, Melling, Lydiate, Crosby, and Woolton, there were woods from three to six miles long by one and a half to three miles wide. In Cheshire, such names as Woodchurch, Woodside, Birken-head, and Holt Hill, indicate the existence of a large extent of timber. According to the old rhyme,—

> 'From Birket Wood to Hilberee
> A squirrel might hop from tree to tree.'

Owing to the circumstances of the case and the sparse population, there was no necessity for the means of defence adopted in more fertile districts.

We have no Norman fendal castles in this part of the country. Of Lancaster Castle little remains besides the entrance gateway and the flanking towers. The castle of Liverpool was erected by King John in the early part of the thirteenth century. It consisted of a number of towers or bastions connected by curtain walls, surrounded by a deep fosse cut in the rock. It was demolished about 1721, and St. George's Church erected on the site. The outline of the area is marked by the surrounding streets.

Another fortified mansion called the Tower was erected or fortified by Sir John de Stanley, the founder of the Derby family, in Liverpool, on the margin of the estuary. This was removed in 1819, and its place is now occupied by Tower Buildings. A castle was also erected by King John, at Shotwick, on the Dee, to guard the passage into Wales, which has entirely disappeared.

The ecclesiastical remains in the neighbourhood are not remarkable for stateliness, but are interesting from their associations. The principal monastic establishment is the Priory of Birkenhead, founded about the year 1153 by Hamo de Massie, third Baron of Dunham, for sixteen monks of the Benedictine order. The remains are still standing, and will form an interesting visit during the Congress. Priories also existed in Lancashire at Burscough, Holland, and Windleshaw, but have disappeared, leaving only fragmentary remains.

The churches are numerous, and many of them worth attention. In Wirral, Bebington Church is an interesting admixture of Norman and late Gothic. Woodchurch is an admirable specimen of a village church, carefully maintained and lovingly preserved. West Kirkby, Heswall, and Eastham will probably also be visited. On the Lancashire side there are several Mediæval churches worthy of inspection. Sefton is a very complete example of late Gothic unaltered, with some good woodwork and a rood screen. Ormskirk is remarkable for its duplicate steeples, a tower and a spire side by side. Wigan has a fine old parish church with a grand tower. Childwall, Halsall, Aughton, Huyton, and Winwick will probably attract your attention. The latter has a good specimen of a chancel screen. At Lydiate will be seen an ecclesiastical structure, commenced just previous to the dissolution, and never completed.

Of noblemen's mansions, Knowsley Hall, the seat of the Stanleys, Earls of Derby, has many points about it worthy of notice. Old Lathom House, the seat of the heroic defence during the Civil Wars by Charlotte de la Tremouille, Countess of Derby, was taken down about 1724, and the present modern structure erected in its place. Croxteth, the mansion of the Molyneux, Earls of Sefton, was erected about the beginning of the eighteenth century. Haigh Hall, near Wigan, the seat of the Earl of Crawford and Balcarres, is a modern mansion, which contained a rich and valuable library of rare and curious works, recently dispersed.

There are many manor houses scattered about this part of the country, which will well repay a visit. In Liverpool there formerly existed two: the Old Hall, within the precincts, which gave its name to Oldhall-street; and Bank Hall, outside the town, of which Bank Hall-street is a reminiscence. Both belonged to the family of Moore, anciently De la More. Bank Hall was a Mediæval moated building, extending round three sides of a court, with a fine hall. It was removed about 1774. Speke Hall, the ancient seat of the Norreys family,—which will, I trust, be visited by the Congress,—is one of the purest specimens of half-timbered moated houses existing. The Mansion of the "Hutte," belonging to the Irelandes, in the same neighbourhood, has little left except the entrance gateway and moat, with a few other fragments, which show it to have been an extensive and noble building. Hale Hall, the seat of the Blackburnes, is a quaint brick building, and is worthy of a visit on account of the neat picturesque village attached. Lydiate Hall and Rufford Hall are good specimens of the black and white architecture. Poole Hall, in Wirral, is an interesting example of a Mediæval mansion in stone. Hooton Hall is a modern building occupying the site of a fine old timbered mansion belonging to the elder branch of the Stanley family. The Hall, which has been unoccupied for some years, has many points worthy of inspection.

The City of Liverpool, to the outward eye, has little to interest the antiquary. There is not a building within its precincts two hundred years old. The scale on which it was originally set out was so circumscribed, its streets and ways were so narrow, and its buildings so mean, that, as commerce developed, the destruction of the whole or a large portion of the original structures became absolutely necessary. I have already mentioned the castle and the tower, both long since dismantled. The only other original building was the Parochial Chapel, now the Parish Church of St. Nicholas, erected in the fourteenth century. This was rebuilt in 1774, in the atrocious style of Batty Langley Gothic, leaving standing the tower and spire. In 1810 the spire unfortunately fell on a Sunday morning, burying in its ruins a large part of the congregation just assembled. In 1819, a new tower was erected, crowned with an open lantern, in a very satisfactory style of architecture.*

The remainder of Sir James Picton's address mainly dealt with the Municipal History of Liverpool, of which we have spoken in reviewing his two interesting volumes of Memorials of Liverpool.

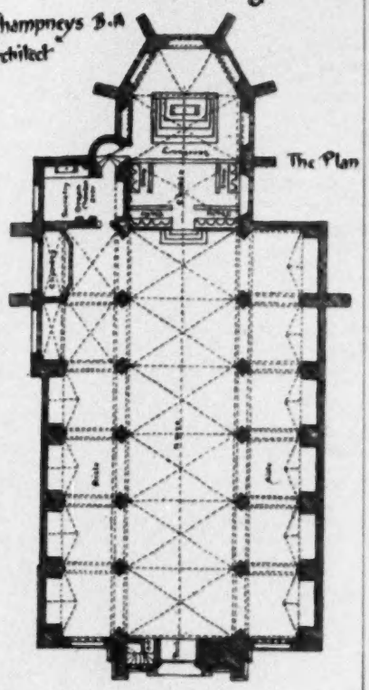
Proposed Town-hall, Lewisham. — A Town-hall is proposed to be erected at Lewisham, estimated cost 8,000*l*. We hear that Mr. Albert L. Guy has been appointed architect. The building will include shops, offices, large hall to seat 1,000, and two small halls, &c.

* Imitated, however, from the lantern of the large and fine church at Newcastle, dedicated to the same saint. —Ed.

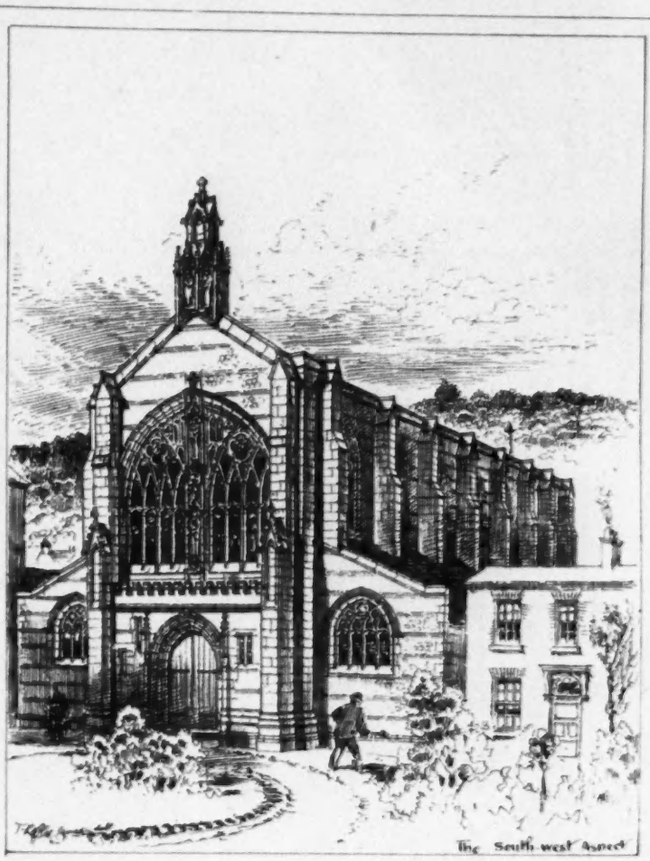
View looking East

Saint Mary · Star · of the Sea Hastings

Basil Champneys B.A Architect



The Plan



The South-west Aspect

The North-East aspect

PHOTO-LITHO. SPRAGUE & CO. 22, MARTINS LANE, CANNON ST. LONDON-E.C.

STONELANDS, SUSSEX.—Mr. E. W. Mountford, F.R.I.B.A., Architect.

STONELANDS, SUSSEX.—MR. E. W. MONTFORD, F.R.I.B.A., ARCHITECT.

The Phototype Co., 301, Strand, London.

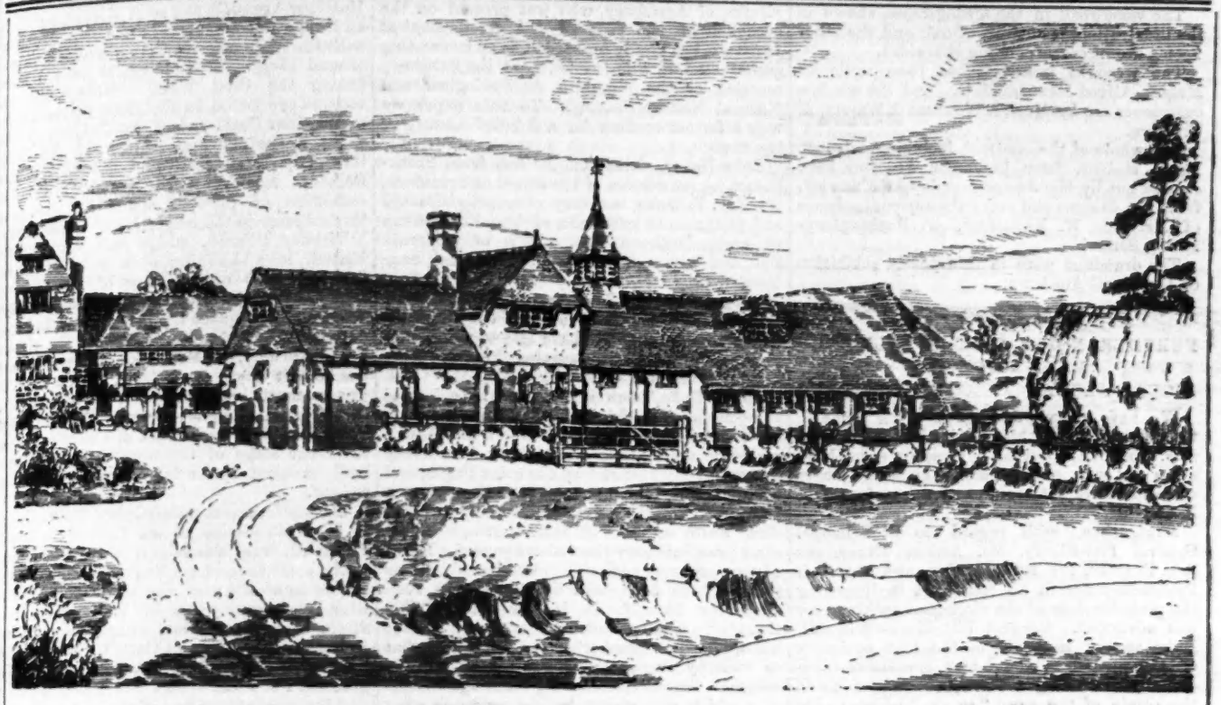
CHURCH OF VAL DE GRACE, PRINCIPAL FACADE.

The Phototype Co., 303, Strand, London.

LA CHAPELLE DES MORTS, AVIOTH, NEAR MONTMÉDY.

PHOTO-LITHO., SPRAGUE & CO. 22, MARTINS LANE, CANNON ST., LONDON, E.C.

CHIMNEY CORNER IN DINING ROOM, STONELANDS, SUSSEX.—Mr. E. W. Mountford, F.R.I.B.A., Architect.

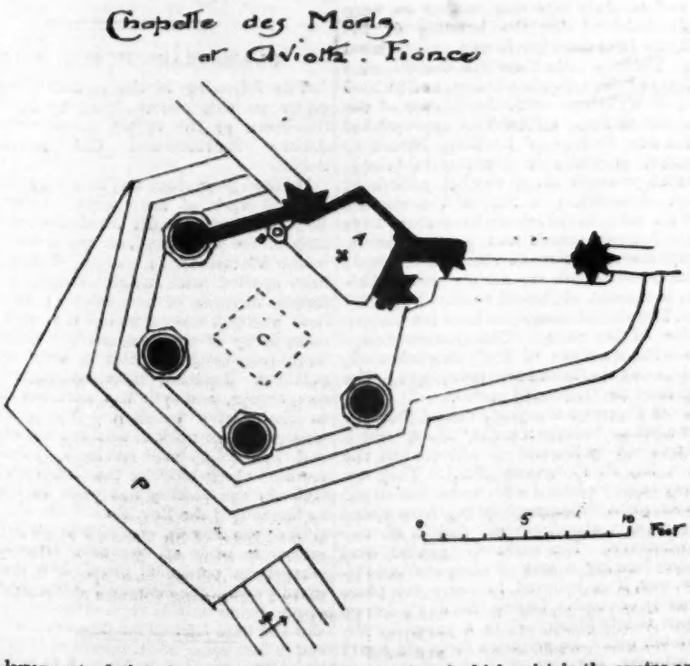


Stables, &c., Stonelands, Sussex.—Mr. E. W. Mountford, Architect.

Illustrations.

LA CHAPELLE DES MORTS, AT AVIOTH, NEAR MONTMÉDY.

THIS exquisite work of the fourteenth century is to be found at Avioth, a small village in the north-west corner of the department of Meurthe-et-Moselle, four miles from Montmédy, and not far from Sedan. It is situated at the angle of the village church, and near the entrance gateway to the cemetery, and is built upon a kind of raised platform, a little over 3 ft. high from the ground, unfortunately not clearly shown in our illustration, but explained by the annexed plan at P.



The lower part of the chapel is quite open, and has the altar enclosed in the recess (A), so arranged that, while it shelters the officiating priest from the violence of the wind and rain, it, nevertheless, allows him to be seen by every person assembled. On the left-hand side of the altar is a small corbelled piscina (B), and in the pavement of the centre of the chapel may yet be seen the position (C) occupied by a stone coffer of considerable dimensions, which originally existed to receive the alms that the bystanders might give for the benefit of souls in purgatory.

The *raison d'être* of the raised platform would be clearly seen on the Jour des Morts, when an important mass is celebrated, and the priest, after it is over, descends upon the platform, and there exhorts those assembled to pray for the dead, and finally gives his benediction.

The clearstory was originally glazed in order probably to protect the lamp which undoubtedly hung from the apex of the vault, and was kept burning throughout the night, and probably used also at burial celebrations in the cemetery. Thus, this chapel may be regarded as an elaborate "lanterne des morts," so many examples of which exist in the centre and west of France. Originally, they consisted simply of an isolated column, in the centre of which a lamp was raised some height, and was allowed to show its light for miles round by unglazed openings through the column. They were placed at the entrance of abbeys, monasteries, cemeteries, leper hospitals, charnel houses, &c., but almost invariably near some frequented main road; their use being to protect the living from the fear of ghosts and evil spirits, and to remind them to pray for the dead.

From this simple column it is not difficult to imagine how the idea became elaborated and developed until it attained the beauty and richness of the example at Avioth.

THE CHURCH OF VAL DE GRACE, PARIS.

WE give a view this week of this fine Renaissance church, which was one of the objects specially visited by the members attending the last Congress of French Architects in June of this year. The church was commenced in 1645, from the designs of François Mansard and Lemercier, and (its construction having been interrupted by political troubles), was completed twenty years under Lemuet, Gabriel Ledru, and Duval. The abbey with which it was connected is now transformed into a military hospital. Some further particulars in regard to it will be found in our report of the Congress. (See *Builder*, June 18 of this year, page 898.)

CHURCH OF ST. MARY STAR OF THE SEA, HASTINGS.

THIS church was founded by Mr. Coventry Patmore, by a donation of 5,000*l.*, and built by the Pious Society of Missions.

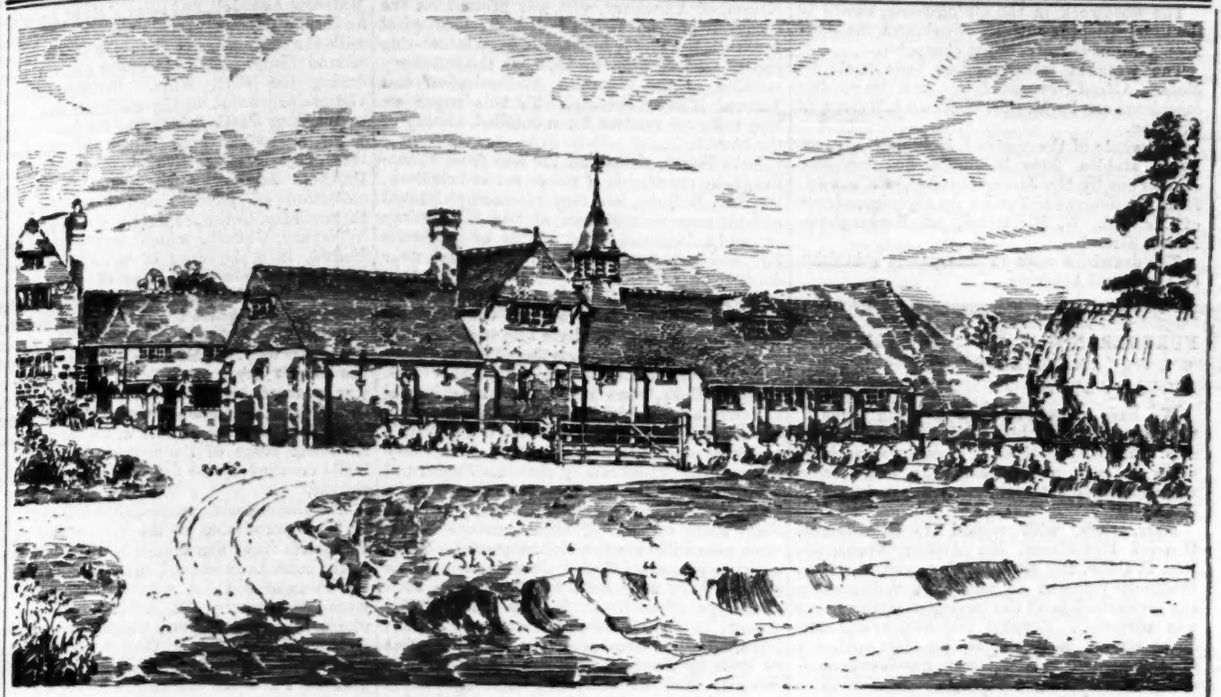
The material used in the walls is beach pebbles, with irregular layers of tiles. The dressings are of Bath stone. The church is situated in the upper portion of the High-street of old Hastings, in which the west end stands, and as the ground falls considerably towards the east, there are extensive crypts beneath, a portion of which was used as a temporary church during the erection of the superstructure, and is now converted into class-rooms. The cost of the whole church was about 11,000*l.*

Mr. Basil Champneys is the architect, and Messrs. Bell & Sons, of Saffron Walden, were the contractors.

STONELANDS, SUSSEX.

THIS house, now nearly completed, is the property of Mr. F. Frank, and stands upon the side of a hill, about a mile from the village of West Hoathly, Sussex. Sheltered on the north and east by pine trees, it commands beautiful and extensive views to the south and west.

The outer walls are built entirely of sandstone, quarried upon the estate, and have a 2 in. cavity in the centre and an inner lining of brick. The roofs are covered with Broseley tiles, as is also a portion of the upper story.



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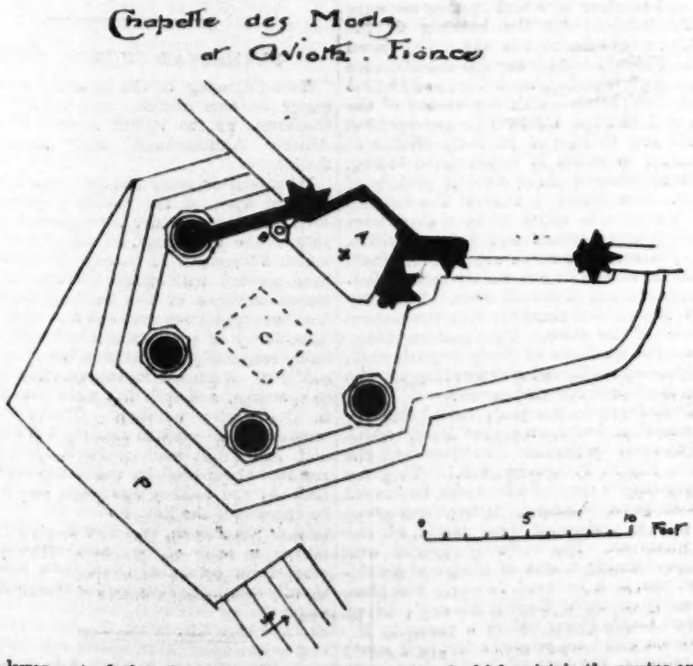

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The *raison d'être* of the raised platform would be clearly seen on the Jour des Morts, when an important mass is celebrated, and the priest, after it is over, descends upon the platform, and there exhorts those assembled to pray for the dead, and finally gives his benediction.

The clearstory was originally glazed in order probably to protect the lamp which undoubtedly hung from the apex of the vault, and was kept burning throughout the night, and probably used also at burial celebrations in the cemetery. Thus, this chapel may be regarded as an elaborate "lanterne des morts," so many examples of which exist in the centre and west of France. Originally, they consisted simply of an isolated column, in the centre of which a lamp was raised some height, and was allowed to show its light for miles round by unglazed openings through the column. They were placed at the entrance of abbeys, monasteries, cemeteries, leper hospitals, charnel houses, &c., but almost invariably near some frequented main road; their use being to protect the living from the fear of ghosts and evil spirits, and to remind them to pray for the dead.

From this simple column it is not difficult to imagine how the idea became elaborated and developed until it attained the beauty and richness of the example at Avioth.

THE CHURCH OF VAL DE GRACE, PARIS.

WE give a view this week of this fine Renaissance church, which was one of the objects specially visited by the members attending the last Congress of French Architects in June of this year. The church was commenced in 1645, from the designs of François Mansard and Lemercier, and (its construction having been interrupted by political troubles), was completed twenty years under Lemuet, Gabriel Ledru, and Duval. The abbey with which it was connected is now transformed into a military hospital. Some further particulars in regard to it will be found in our report of the Congress. (See *Builder*, June 18 of this year, page 898.)

CHURCH OF ST. MARY STAR OF THE SEA, HASTINGS.

THIS church was founded by Mr. Coventry Patmore, by a donation of 5,000*l.*, and built by the Pious Society of Missions.

The material used in the walls is beach pebbles, with irregular layers of tiles. The dressings are of Bath stone. The church is situated in the upper portion of the High-street of old Hastings, in which the west end stands, and as the ground falls considerably towards the east, there are extensive crypts beneath, a portion of which was used as a temporary church during the erection of the superstructure, and is now converted into class-rooms. The cost of the whole church was about 11,000*l.*

Mr. Basil Champneys is the architect, and Messrs. Bell & Sons, of Saffron Walden, were the contractors.

STONELANDS, SUSSEX.

THIS house, now nearly completed, is the property of Mr. F. Frank, and stands upon the side of a hill, about a mile from the village of West Hoathly, Sussex. Sheltered on the north and east by pine trees, it commands beautiful and extensive views to the south and west.

The outer walls are built entirely of sandstone, quarried upon the estate, and have a 2 in. cavity in the centre and an inner lining of brick. The roofs are covered with Broseley tiles, as is also a portion of the upper story.

The woodwork in the dining-room, shown in the illustration, is entirely of oak, and the other rooms are of corresponding character.

The wrought ironwork has been made by Messrs. Alfred Newman & Co., and the window casements are by Messrs. Wenham & Waters, of Croydon.

The whole of the contract, including entrance lodge, stables, farm buildings, &c., has been carried out by Mr. James Longley, of Crawley, from the designs and under the superintendence of Mr. Ed. W. Mountford, of Buckingham-street, Strand.

The drawings were in this year's exhibition of the Royal Academy.

FURTHER NOTES OF THE SALISBURY MEETING OF THE ROYAL ARCHÆOLOGICAL INSTITUTE.

We have already devoted so much space to the proceedings of this meeting* that we must now bring our report to a close by some brief notes on such of the buildings and places visited as have not been previously referred to in detail.

First, then, with regard to Stonehenge. General Pitt-Rivers, Mr. Arthur Evans, the Rev. F. Duke, the Rev. Dr. Cox, and the Rev. Prebendary Scarth all took part in discussing the probable date of the circle, but nothing new was advanced. General Pitt-Rivers and Mr. Duke argued in favour of the high antiquity of the structure, the latter gentleman incidentally broaching a theory of his own as to the origin of the word "*sarsen*," which he did not believe was a corruption of "Saracen," as commonly supposed. Looking at the fine sandstone of which some of these sarsen stones were formed, he believed that their name was derived from the noun *sarse* (to be found in old dictionaries, such as Bailey's), which meant a fine sieve, the verb "to sarse" meaning to sift through a fine sieve. The fineness of the sand of which the stones were composed might have led to the notion, on the part of untutored natives, that the stones were composed of sand which had been "sarsed." From this it would be an easy transition to "sarsed-un" and ultimately to "sarsen." Mr. Arthur Evans agreed with General Pitt-Rivers that Stonehenge was of pre-Roman date, and spoke of certain resemblances between necklaces and other ornaments found in the barrows round Stonehenge and similar articles discovered at Bologna and other places on the Continent. Dr. Cox favoured the theory that the structure was of post-Roman date, and that it was erected in the fourth century A.D. as a trophy of victory gained by the British tribes in driving away the Romans.

Amesbury [or Ambresbury] Church, visited on the same day, is a very interesting building, which was described by the Rev. Precentor Venables. It is unusually lofty for an aisleless Norman church. The general character of the chancel, transepts, and crossing is Early English, the chancel being much the statelier part of the church, which was monastic. The south-western pier of the crossing affords evidence of having been strengthened in consequence of some structural failure. There is a very fine Norman corbel-table. In the chancel are two fine Decorated windows, with reticulated tracery.

Mr. Micklethwaite, in the course of some remarks on the church, adduced reasons for supposing that there was originally a Saxon church on the site, and he called attention to the absence of the screen, which, he stated, was removed when the church was "restored," some years ago, when some one conceived the idea that the screen ought to be removed. Fortunately, it had been carefully preserved in its entirety by Mr. Edwards, a local gentleman, who had, indeed, built a museum for its preservation. It was in very good condition. Mr. Edwards authorised him to say that whenever the vicar and churchwardens saw fit to re-erect it in the church it was at their service.

Mr. Greville Chester said that it was his idea that, according to the Rubric of the Church of England, it was illegal for a chancel to be without a screen. This view was endorsed by other gentlemen, but as the discussion appeared likely to lead to warm controversy it was not pursued. The church was stated to have been restored by Mr. Butterfield. Mr. William Cove Kemm, of Amesbury, who was present on the occasion of the visit of the Archæological Institute, has kindly forwarded us an interesting paper* read by him, in 1876, at the Salisbury meeting of the Wiltshire Archæological and Natural History Society. To this paper we may refer our readers for a detailed history of the church.

Lake House, visited on the way from Stonehenge, by permission of the owner and resident, the Rev. E. Duke, is a very pleasantly-situated and picturesque residence, of late Elizabethan or early Jacobean date. It is of moderate size, and very suggestive of Shaw House, near Newbury.

Of buildings in Salisbury itself, visited by the Institute, we have already described St. Thomas's Church. We have also to mention in this connexion the interesting Poultry Cross (partially restored some years ago); the "Hall of John Halle," now serving as the principal show-room of a china and glass merchant on the canal, but formerly the hall of a merchant's residence, dating from about 1470. It was very conservatively restored by the elder Pugin, and contains a specimen of his handiwork as a painter. (Referring to Pugin, we may mention that while on one of their carriage excursions near Salisbury the visitors passed a house of very pronounced Gothic character which was said to have been built by Pugin as a residence for himself. It is now called "The Grange"; whether moated or not we could not learn, but some member of the party said that as built by Pugin it was entered by a drawbridge). Another interesting building in Salisbury which was visited by the party is what was formerly known as Audley House, an interesting old mansion partly dating from the second half of the fifteenth century. Within the last two or three years it has been acquired for the purpose of a "Church House" for the diocese of Salisbury, and has been very conservatively restored by Messrs. Crickmay & Son. It is admirably adapted for its new purpose, several of its fine rooms being well suited for council meetings, committees, &c., while other rooms serve as offices, libraries, secretaries' rooms, &c.

Downton Church, near Salisbury, was inspected under the guidance of Mr. R. P. Pullan and the Rev. W. D. Hill, the vicar. Mr. Hill, in the course of his paper, said that the size and dignity of the church, and especially of the chancel, were not due to connexion with any monastic establishment. The bishops of Winchester were lords of the manor in Saxon times, and to their care and interest we were probably indebted for the building of the church. In 1382 the church was appropriated to "the Bishop's table" for the maintenance of William of Wykeham's scholars, and in 1385 William of Wykeham (with the licence of the Crown and of Pope Urban VI.) appropriated it to his new College of St.-Mary-Winton at Winchester, to which it continues to belong. The church presents three distinct periods of building. The oldest is that of the western part of the nave, in which we have three bays with late Norman arcade and pointed arches. The capitals on the north side are original; those on the south side are mainly modern imitations, in cement, of the old work. Two lofty bays of Transitional character form the eastern extension of the nave. The eastern tower arch is a fine specimen of Early English work, with clustered shafts and rich mouldings. The chancel is of the Decorated period.

While at Downton the party visited the very curious earthworks known as the "Moot," which were explained by General Pitt-Rivers and the occupier, Mr. E. P. Squarey, F.S.I. They are now very thickly planted with trees, but an old sketch or print is extant, dating from about 180 years ago, showing them devoid of any trees whatever. The curiously-graded oval enclosure, forming a sort of elongated amphitheatre, was, it is believed, formerly the place of assembly or moot. During this day's drives, Longford Castle (described in a paper by Mr. J. A. Gotch which we printed a fortnight ago†) and Trafalgar, the seat of Earl Nelson, were taken *en route*, for the purpose of external inspection.

Wardour Castle, visited on the 6th inst., by permission of Lord Arundell of Wardour, is a late specimen of castellated architecture, and the keep is unusually lofty. It received some Renaissance embellishments at the hands of Sir Matthew Arundell, and some of these, especially an internal doorway, are in picturesque contrast with the more massive Gothic work above and around them. The old castle suffered much during the Civil Wars. Subsequently the visitors proceeded to the modern house known as Wardour Castle, which was designed by Pain about a century ago. Much of the detail internally is suggestive of the work of the Brothers Adam. Lord Arundell's valuable collection of pictures and *objets d'art* was thrown open to the inspection of the visitors.

Tisbury Church, which was subsequently visited, is a building of some architectural interest. The upper stage of the tower is somewhat curious, and was built about 120 years ago to replace the spire, which had been destroyed by lightning. Some of the visitors thought it ugly, but Mr. Micklethwaite expressed the hope it would be suffered to remain, as it was a most ingenious piece of construction, lightly built of stone; it was mainly supported by an ingenious framework of timber to relieve the lower stage of the tower (which had been badly crushed by the fall of the spire) from its weight.

The visitors next proceeded to Wilton House, by kind permission of the Earl of Pembroke. The south front was rebuilt by Inigo Jones, and at the same time (according to Mr. Nightingale) the wings of the east side were brought somewhat into harmony with it. The central portion of the east front is very suggestive of the old Examination Schools at Oxford. The so-called "Holbein's Porch" in the gardens, and the graceful Palladian bridge are among the other architectural attractions of the place. The fine collection of pictures and antique sculpture in the house were inspected with much interest.

Wilton Church, hard by, was visited as a notable specimen of a modern church, built mainly on the lines of the Italian Basilican churches. It was built some thirty years ago at the cost of the first Lord Herbert of Lea, the architects being Messrs. Wyatt & Brandon. It has a lofty campanile, and contains a great deal of old glass and mosaic work brought from Italy. Canon Olivier read a paper fully describing the church.

Heytesbury and Knook Churches, both of which have been restored by Mr. Butterfield, and Heytesbury House, were also visited.

The last day's excursion was to Rushmore, where the visitors inspected General Pitt-Rivers's excavations at Woodcutts, a Romano-British village, where discoveries of considerable interest have been made.

FLAMSTEAD CHURCH, HERTS.

The following is the greater portion of a paper on this church, read by Mr. S. Flint Clarkson, at the recent meeting of the St. Albans Architectural and Archæological Society:—

"Totternhoe stone and flint were used in the original work of the church. Totternhoe, in Beds, is situated under the slopes from the west side of the table-land, on the eastern edge of which Flamstead is placed. Rough-cast has been applied with much liberality to the external surfaces of the building, covering up both wrought stone work and flint work. Dampness, decay of surfaces, and odd taste are probably responsible for this in about equal proportions. Ashlared buttresses, stone dressings to openings, and split flint work remain visible in the vestry building. The chancel has wrought stone work to windows and buttresses, and split flint wall surfaces, having been restored about 1860 by the University College, Oxford; the rectory was given to the College by the will of the Rev. Robert Gunsley, incumbent of the church, who died in 1618. The six arches in each of the nave arcades are all carried on octagonal piers. The scale is unusually small, the distance from centre to centre of pier being only 10 ft., and the height between cap and base 5 ft. 10 in. The tower at the west end is just upon 23 ft. square externally at the top. The chancel is 16 ft. 3 in. wide, and of fair length. A tall Perpendicular wood-screen, solid for about 4 ft. of its height, and open above, with nine divisions in its width, runs across on the nave side of the chancel arch. Sedilia, piscina, and an external doorway are found in the south wall. In the north wall a door leads into a vestry. At a little above mid height in the lofty room the stone corbels remain which once carried a floor. The sight

* See pp. 200, 228, 266, *ante*.

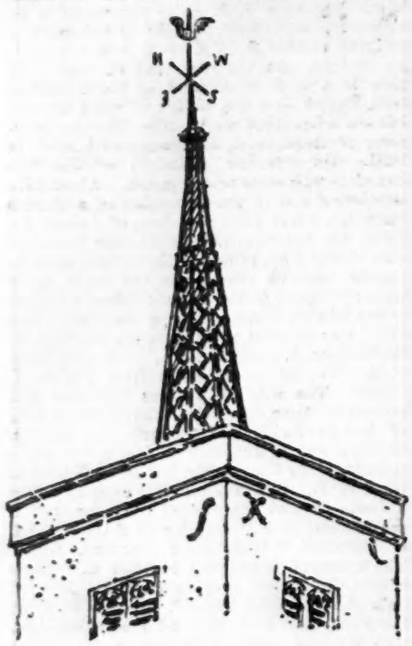
* "Notes on Amesbury Church and Abbey."
† See p. 233, *ante*.

of them explains what looks curious in the arrangement of the windows as seen from outside. A muniment room is found not rarely over a vestry in this way. The history of the church is not clear at this moment in all respects, for it has been a good deal altered, and rough-cast and brick patchings now hide some evidences of date. There are, as far as we know as yet, no contemporary documents, with allusions to the church, on which conclusions or debates might rest. The profiles of the abacus of the cap and of the hood-mould of the arch in the east wall of the tower show that there was a Norman tower, and therefore a church of some early date. Possibly a good deal of the present tower is of the Norman period, with fresh openings and added buttresses; how much in Norman we cannot see through the rough cast, &c. A year cannot be named for the work, as the archway is filled in with masonry. In the centre of this filling-in is a small archway, only 7 ft. 9 in. between the jambs, of Geometrical date, say about 1260. The crippling of the old tower may have begun early, and the larger arch may have been filled in as a precaution against further failure. The tower has been helped at various times since by huge brick buttresses and iron ties. The nave arcades must be dated at about 1195; they are just beyond the period of Transition. The most noteworthy feature in the arcades is the foliage of the caps and responds; the ten caps of piers and four responds are all carved. They are varied in design throughout, some of the designs being of much merit. The leaves are conventional trefoiled leaves, spreading over the bells of the capitals at different angles, having lost some of the stiffness and most of the adherence to the bell which characterise the foliage of the Transition, as far at any rate as about the year 1175; but the leaves are still formal and somewhat stiff, and are not fully relieved and downward-bending as the leaves in later Lancet. The Lancet window remaining in the north-west corner of the chancel would lead us to believe that a Lancet chancel,—it may be shorter than the present chancel,—was joined in to the Lancet nave. The arch now opening from the nave into the tower has been mentioned as of Geometrical date (about 1260). The windows, sedilia, and piscina in the chancel have been restored, but they no doubt represent in the main the original work of that part of the building and the chancel arch in the original work, that is, Curvilinear work of about 1330. The chancel was either added to or remodelled at that time. The chancel roof may well belong to the same period. It is a high-pitched roof in three bays, with purlins, collars, collar braces, and wind braces, all plain in the extreme. The present clearstory is a later addition. A somewhat roughly-sloped set-off may be seen above the ground-story arches. The upper wall is thinner than the earlier work below. The roof of the nave is a plain low-pitched roof, with strong timbers plainly chamfered only. The carving of the corbels under the wall-pieces is not meritorious; some have angels bearing shields, and some grotesques. The principals centre in a proper way with the columns of the arcades; but in the aisle roofs the principals disregard the arcade in the most determined way; the aisle roofs are also plain, and have plastered ceilings. The wooden screen between the nave and the chancel is well moulded and fairly carved. There are remains of the old colouring in the division on the north of the central opening; graining and varnish have not been spared on the rest. There are a few old benches in the westernmost bay of the nave, of a simple kind. Allowing for injuries, neglect, and reparations, the church is much as it was in the sixteenth century; no important structural changes have been made since then. The communion-rail is a heavy oak one, supported on turned balusters with twists, apparently early eighteenth century work. The pulpit was moved to its present position against the north-east respond of the nave, and the (characterless) tall pews were shortened 1 ft. 6 in. about 1859, under the care of the Rev. W. H. Hinde, a benefactor to the parish, who held the living from March, 1858, to June, 1875. The second pier from the east on the north side was roughly treated when the pulpit was placed against it (in the position from which Mr. Hinde removed it), and it has been ingeniously suggested that the signs of rough usage on the opposite pier (south side of nave) may be due to the pulpit being tried there before being put on the north side. There was a narrow gallery at the west end, which was removed about six years ago; its erection and its removal did little damage, but the erection of the canopy, now removed, over the large pew at the south-east corner of the nave, caused serious damage to the stone respond of the arcade. Making all explanations and allowances, it must still be noted that the building is not in good order; that, in fact, it should be a pleasing example in the eyes of the sentimentalists who delight in unarrested decay and slovenly hacking and patching. The bells are six in number. Five of them have the inscription, "Chandler made me, 1664;" the sixth, "John Waylett, London, fecit. 1729." "Chandler made me" seems to be a favourite inscription of these founders. Their foundry was at Drayton Parslow, Bucks, about midway between Leighton Buzzard and Winslow; and from it were supplied a good many bells for this neighbourhood when the rush of business came at the Restoration. The earliest bell from the foundry now in Herts is dated 1651; this would be by Anthony, the second of the Chandlers, born 1622. The competition of the great London foundries led to this one being given up in 1723. When Edward Hall, who thus gave up the struggle, died in 1735, he was described in the parish registers as "a poor bell founder." Mr. North, in his "Church Bells of Hertfordshire," suggests that the "four bells and a Sance Bell, in the steple" in 1552, were probably recast by Chandler in 1664 into the five bells now existing. The font is of Totternhoe stone, and is said to be the original font, shaped afresh as we see it between thirty and forty years ago. There are two recumbent effigies under the third arch from the chancel on the north side of the nave. A pinnacle runs down on each side, and a cusped crocketed canopy with embattled cornice rises up behind the head of each of the figures; all being nicely designed and well executed. The figures have loose robes, feet supported by dogs, and a scroll runs from dog to dog. I hope the Rev. H. Fowler's careful study of this monument may tend to some identification of the persons commemorated. Its date is evidently about the end of the fourteenth century, when the manor was held by the Beauchamps. The brass on the chancel floor in memory of John Oudeby, some time rector of this church, who died 7th March, 1414, has a good figure under a canopy. The Beauchamps were lords of the manor of Flamstead from 1316 to 1471; and the rectory and right of patronage were till 1487 vested in the lords of the manor. Oudeby was, it is stated on the inscription, Canon in the Collegiate Church of St. Mary in Warwick, in which the Beauchamps took so much interest. The choir of that church is said to have been built by the second Thomas Beauchamp about 1392, and Oudeby, no doubt, did duty in that choir. Of the wonderful Beauchamp chapel he, of course, knew nothing, for the Richard Beauchamp who devised the building of that chapel, and fixed the spot for it during his lifetime, died at Rouen in April, 1439. The foundation was laid in 1443; it was completed in 1464, and consecrated in 1475. The generous interest in buildings, "well, fair and goodly built," of these great nobles seems, however, to have expended itself without Flamstead gaining anything akin at their hands. The two small brasses of about 1450 represent a man in civil costume and his wife and children. The inscription and four shields have disappeared. The rhyming inscriptions on the stone piers of the nave arcade are so old that they must be noticed. Their dates are 1596, 1597, and 1598. They can hardly be the crowned works of a fraternity of parochial versifiers. No doubt some one person, with a suitable pocket knife, a love for rhyming, and a pride in both, was responsible. Here is a specimen, on the easternmost of the piers on the south side of the nave:—

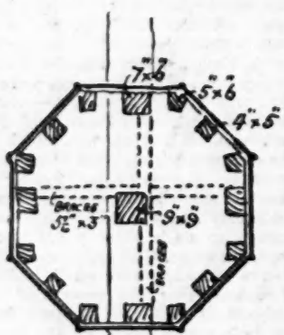
"Within this yle
Where bricks are laid
There lieth buried
A virgin mayde
Frauncys Cordall
Was hir name
She lived and died
In godlye fame
Ano. 1597 Junæ VII."

This Frauncys Cordall, who died in 1597, was most likely a sister of the George Cordall, born 1569, eighty-four years old in 1653, whose virtues are recorded in another position. Something should be ascertained as to the Cordalls, John Grigge of Cheverill's End, John Pace, Sir Bartholomew Fovke, and I should be glad to have assistance in ascertaining it. The monument to "Sir Bartholomew Fovke, Knt. [died 1604, aged sixty-nine], who served Kinge Edward, Queene Marye, and was Mr. of the Household to Queene Elizabeth for many yeares, and to King James that now is," is just at this junction of the east and south walls of the chancel. A small figure of a knight in armour is kneeling at a desk. The monument is in alabaster, with little obeliaks of red marble, and was erected by "Edward Fovke, gent.," his brother. At the east end of the south aisle is a large monument of black marble, with figures in white,—a bit of solid history, but not a beautiful work. The Thomas Saunders, of Beechwood, commemorated, died in 1693. He was the grandson of the first Saunders who came to the parish. About 1579 Beechwood was in the possession of a Thomas Saunders, son of John Saunders, of Amersham. Anne, the daughter of the Thomas Saunders who died in 1693, is one of the figures in white marble. She is kneeling in the front, away from the figures of the other children who died in her father's lifetime. Anne [born 1670, died 1719] was married to Sir Edward Sebright, of Besford, co. Worcester, Bart., born 1666, died 1702. The baronetcy dates from 2 Car. I. (1626). The wife of Thomas Saunders and mother of Anne, was Ellen, daughter and heir of Robert Sadlier, of Sopwell, St. Albans. Sopwell came to Thomas Saunders in this way: it was sold by him to Sir Harbottle Grimston (died 1683). It has apparently escaped notice hitherto that, at the foot of the monument in the east portion of the north wall of the chancel, is inscribed, "1382, John Flaxman, fecit." The memorial inscription contains the names of six Sebrights, ranging from Sir Edward Sebright, the third baronet, husband of Anne Saunders, died 1702, to Sir Thomas Saunders, who died in 1764, with mention of Dame Henrietta, who did not die till 1772. The monument was executed during Flaxman's seven years' absence in Italy, and when he was twenty-seven years old. Perhaps it was carried out in England from a model sent from Italy. Several funeral monuments were produced in that way from his models,—notably that of Collins in Chichester Cathedral. Faith reclines on the east side of the urn, which is placed in the centre at the top; and Hope with an anchor reclines on the west side. The figures are less than life size, the extreme distance from toe to toe is only 7 ft. 4 in. The effect is conventional enough to us in these years, but there is an engaging earnestness and simplicity which will always make the work worth looking at. Not, of course, that the powers of the greatest designer of sculpture England has produced are fully shown here, for the monument was designed in the early days of mastership, with figures in the round which were never Flaxman's forte, and was probably executed under adverse circumstances. The large Pickford tomb in the north-east portion of the graveyard has less than no interest as a design, but should be noticed as a memorial of the founder of "Pickford and Co.," who started at Markyate-street, in the parish of Flamstead, what was afterwards developed into a great system for conveying goods by road, a couple of generations or more before railways came to the aid of his successors. Thomas Pickford departed this life on the 21st day of September, 1811. We have at Flamstead a good specimen of a method of finishing a church tower, of which there are several examples in the district. A spire is always in idea a high-pitched pyramidal or conical roof covering the whole, or nearly the whole, area of a tower. But this tower has lead gutters inside the parapets, and a lead flat inside the gutters, and in the centre of the lead flat is a spirelet (see sketches) with very steep sides, showing in a general view as a thin finger pointing upwards, contrasting in an agreeable way with the simple square outlines of the good-sized tower. There are no distinctive details by which the date can be settled with certainty. I should be much pleased to receive notes, with reference to accurately dated (or dateable) examples, of flat roofs and central spirelets of this sort. The size of the tower at the top is 22 ft. 9 in. by 23 ft. 2 in. externally, and the spirelet is octagonal on plan, and 5 ft. 9 in. across; the sides of the octagon are thus about 2 ft. 6 in. Four of these sides are parallel to the four sides of the tower. Chauncy in 1700 found "a square tower, wherein is a ring of bells, and a shaft or spire about 20 ft. high, erected upon

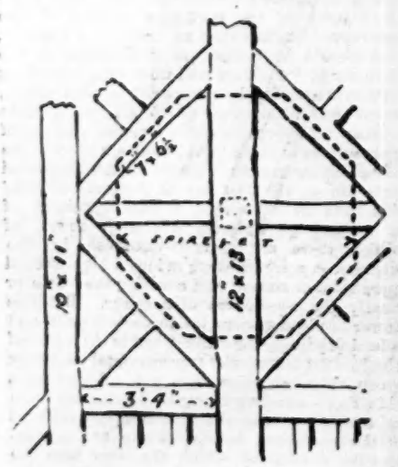
the tower covered with lead,"—the total height to the top of the vane is evidently more nearly 30 ft. than 20 ft. The centre portion of the tower roof is carried by a beam 12 in. by 13 in., running in the centre from north to south, and by beams 10 in. by 11 in., parallel to this beam, and at a distance of 3 ft. 4 in. from it. Bearers 7 in. deep and 6½ in.



Spirelet, Flamstead Church.



Plan at Base of Spirelet.



Plan looking up

wide, put diagonally from the side beams to the central one, form a square placed anglewise in the centre of the tower; and from these diagonally-disposed bearers 7 in. by 6 in. pieces start in the centres of the north, east, south, and west sides of the spirelet, also 5 in. by 6 in. shaped pieces at its angles, and 4 in. by 5 in. bearers in the centres of the other sides of the octagon. The space between the inclined timbers is thus less than 12 in. at the bottom, and, of course, it is less and less upwards. These 4+8+4=16 pieces, which make out the shape of the spirelet, abut at their upper ends against an upright post 9 in. by 9 in., placed in the exact centre of the tower. This upright post is framed into the 12 in. by 13 in. carrying beam, and runs up to the vane. The tendency to alteration of form by the wind's action is counteracted by raking braces, 5½ in. by 3 in., running parallel to the cardinal side of the octagon, and secured at their ends to the 7 in. by 6 in. bearers which run up the centres of the cardinal sides. As these raking braces pass the central upright, at distances of about 4 ft., something is cut out of each, the braces thus pressing shoulders against the upright. Battens, 5 in. by 1 in., and 2½ in. apart take the lead covering. There are lead rolls at the angles; and lead rolls, making diagonal lines between the pieces of lead for about two-thirds of the height, give an easy variety to the surfaces; above that level the sides of the octagon have become narrow, and single pieces of lead are used. The extreme length of the longest bit of lead in the lower part of the covering is about 2 ft. 10 in. The access to the flat roof of the tower is by a ladder placed in the centre of the bell-chamber, and by a short and narrow door in the north-east side of the spirelet. Additional height would have been convenient, but that would have forced the door into an awkward prominence when seen from the village street, unless the diagonal lines of the rolls had been continued over it. Starting the timbers of the octagon upon a framed curb secured against any change or form, and some additional horizontal bracing at different levels, also a better way of hanging the lead, might be suggested; but, although of course nothing unusual, the general construction is simple and effective. Descriptions and old examples being somewhat rare, I have ventured on a rather minute account of this, stating or implying in going along the reason for each detail.

GLASGOW ARCHITECTURAL ASSOCIATION.

A MEMBER sends us the following account of the first sketching excursion made by the members of this Association:—

"During the latter fortnight of July a small party of members of the Glasgow Architectural Association made the first architectural excursion under its auspices, and the results, on the whole, were of such a satisfactory nature that there is little doubt that it will form the first of a series of annual architectural tours. It was ultimately agreed that Cheshire might prove a happy hunting-ground, and to Cheshire it was accordingly decided to go.

To Chester, *vid* Liverpool, and on as far south as Nantwich, from thence by a more easterly route to Manchester, and so back to Glasgow, was finally the programme which found most acceptance. The choice of this route was made chiefly on account of the half-timber work in which this county is so rich, and which forms so important a part of the Domestic architecture of England; even in the northern kingdom it is not without its modern followers. On Thursday, the 14th of July, a start was made, our first stoppage being Liverpool. Here we were much delighted with St. George's Hall, both the exterior and interior occupying our best attention.

The drawings for the Liverpool Cathedral and the paintings in the Walker Art Gallery were also examined. Speke Hall, about seven miles from Liverpool, was next visited, and a considerable amount of sketching done by the members. This was our first introduction to real old half-timber work, and during our tour we did not see a finer example. It is built round a quadrangle and surrounded by a moat, and is comparatively early work, its details being generally of a Gothic character, differing in this respect from most of the remaining half-timber we afterwards saw in Chester, which was of a more Classic or Renaissance nature. Chester was our next place of halt, and we stayed here four days. The thanks of the Association are due to Mr. Lockwood, architect, in Chester, for the kindly interest he took in our procedure and the useful information he gave regarding the places most worthy of our attention; also to his assistant, Mr. Beswick, who went over the ground with us and without whom we should have missed much.

At Chester we measured Stanley House, one of the best examples of timber work, and numerous sketches were made in Bridge-street, Whitefriars, St. John's Church, and the Cathedral. Several of the modern buildings in Chester were also much appreciated. From Chester we went to Nantwich and stayed there for two days. Here there is also some half-timber work, but the parish church is distinctly the most interesting building, and received most of our attention. The octagonal central tower and the stone pulpit and screen are specially admired and, of course, sketched. At Sandbach, which we next visited, there is an interesting half-timber hall, now used as a hotel, a Perpendicular church restored by Sir Gilbert Scott, and two old crosses standing in the Market-place. With Congleton we were disappointed, as there is not much of interest there, but it is a good centre for viewing places of interest in the vicinity.

Astbury Church and Moreton Hall were visited from hence, the latter pleasing us exceedingly. It is now occupied as a farmhouse, and is rapidly falling into disrepair. The hall is approached by a stone bridge leading direct into the courtyard over the moat, which is still filled with clear water supplied by a spring. There are several octagonal bay windows in the courtyard, which rise through two stories, and each side of which is finished with a wooden gablet and bargeboard. Some of the tie-beams of the gables are elaborately carved in a very spirited manner. The principal feature of the house is the ball-room, which occupies the third story, and is about 80 ft. long by 10 ft. broad. Along the entire sides of this ball-room is a row of windows filled in with leaded clear glass, the patterns of which are many and varied. From Congleton we walked to Macclesfield, by way of Gawsworth. Gawsworth Church is a most interesting Perpendicular example, and is splendidly situated. The wooden roof of this church and the decorations of the beams are specially good. There is also a good half-timber hall here. From Macclesfield, which is quite uninteresting, we went to Adlington to visit the Hall there, but as the occupant was engaged with company, we could not see the interior. Our regret at this was great, as we understand it is one of the sights of the shire. We next proceeded to Bramhall, now being restored under the directions of Mr. Charles Nevill, the proprietor, in a very thorough manner. Mr. Nevill was kind enough to show us over the hall, explaining to us his restorations and the data on which he was proceeding. This hall is a very extensive one, and has somewhat the same arrangement of gables in the front as Speke Hall. Some of the original decorations of the house have been lately discovered, and are very interesting, the colour being specially well preserved. From Bramhall we came on to Manchester, and visited the Exhibition there. Thus finished the first Glasgow Architectural Association tour of any duration, but we hope to make it a permanent part of our programme of work, and thereby increase the usefulness of the Association and the enthusiasm of its members."

Memorial to the late Hon. Thomas Grosvenor.—In the secluded churchyard of Northwood, on the border of More Park, Rickmansworth, has just been erected, in Sicilian and Cippolino marbles, a memorial of the late Hon. Thomas Grosvenor. It consists of a pierced and elaborately-carved railing surrounding the grave. Each side is formed into three panels; the centre one has a cross surrounded by Cippolino; on each side of this the panels are delicately pierced. The foot of the memorial contains the inscription-panel, surrounded by highly-worked piercing. The head consists of a pierced cross and the letters A.P.C. within a circle, and two carved scrolls of the vine, carved on both sides, and springing from a chalice at the base. The work was designed by Mr. E. J. Poynter, R.A., and has been executed by Mr. Henry Terry, sculptor, of North Brixton.

Durlston Head.—On the 13th inst. the Crown Princess of Germany, with Sir Henry and Lady Ponsonby and others, visited Swanage. The party, on arrival from Cowes, drove through Durlston Park to Durlston Head, where they inspected the pavilion designed by Mr. Reginald Pinder, F.R.I.B.A., and other works now being effected there by Mr. George Burt (ex-Sheriff of London), of Purbeck House, to whom the property belongs.

The Student's Column.

LAND SURVEYING AND LEVELLING.

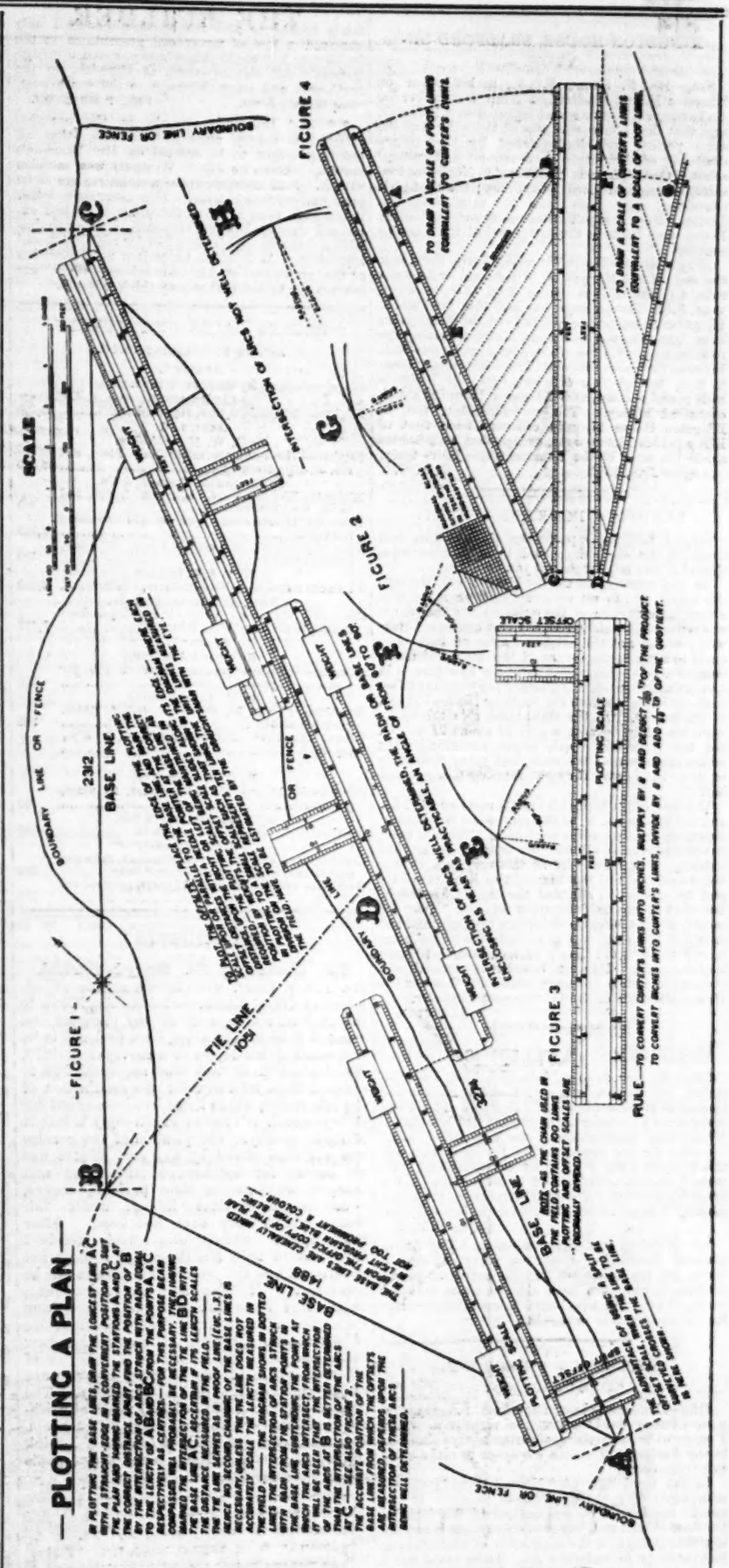
IX.—PLOTTING A PLAN.

IN chain surveying the accurate position of base lines from which offsets are taken, depends upon the intersection of measured distances. In fig. 1 the base lines A B, B C, C A, measure respectively 14 chains 88 links, 23 chains 12 links, and 32 chains 74 links. The plan need not necessarily be plotted so that the top of the paper represents the direct north, as in an ordinary map; but the lines should be placed in the most convenient position to suit the shape of the survey. It will generally be found best to commence by drawing the longest base line with the aid of a straight edge. The position of the stations A and C at a distance of 3274 links (see fig. 1) apart are then marked with a needle pointer (see fig. 14) upon the line A C, and are temporarily indicated for future reference in the process of plotting by surrounding the station point with a small circle drawn in pencil, as shown at the points marked A and F in fig. 8. The position of the station at B is next determined by striking an arc from the station at A with a radius equal to 1488 links, and then intersecting it with an arc having a radius equal to 2312 links struck from the station at C. Figures 5 to 14 will appear in our next article.

Fig. 2 illustrates four different positions of arcs for the determination of station points from chain measurements, those at E and F being clearly defined, while those at G and H overlap one another to such an extent, that it is difficult to accurately mark their exact point of intersection. The angle between the base lines should, as near as practicable, be not less than 60° or more than 90°. If the sides of the triangle A B C have been correctly measured in the field, and accurately plotted to scale; the tie line B D drawn from station B to 1580 links upon the line A C should scale the length measured in the field, namely 10 chains 51 links.

As the chain used in the field contains 100 links, plotting and offset scales are decimally divided. The subdivisions upon the edge of each scale read simply a certain number to the inch marked upon the scale. Thus in the scales shown upon the line A C the mark 10 simply means that there are ten equal subdivisions to the inch. If, therefore, the scale to which the plan is to be plotted be a scale of one chain to the inch, each subdivision upon the scale would represent ten links, and the unit lengths would have to be estimated by the eye. In some scales, divisions marked "feet" are shown upon one edge, which is intended to give the equivalent in foot links corresponding with the scale of Gunter's links marked upon the opposite edge. Upon reference to fig. 3 it will be seen that a length of 3 Gunter's chains or 198 ft. (3 by 66 ft.) is nearly the same length upon the scale as two chains (200 ft.) upon the edge marked "feet." If the chain used in the field be the 100 feet or any foot-divided chain, and the plan be plotted to a scale of feet, with the use of the scale of decimal equivalents to an inch, the divisions marked feet upon the opposite edge of the scale mean nothing; but if the chain used in the field be a chain of Gunter's links, and the plan be plotted to a scale of one chain to an inch, with the use of a scale containing ten or more divisions to the inch, then measurements scaled with the edge of the scale indicating feet, will give the equivalent length in foot links. Sometimes it is useful to plot with a scale of "links" equal to a certain number of feet to an inch, when Gunter's chain has been employed in the field, and it is desired that the scale of the plan shall, for future reference, be an exact number of feet to one inch.

Fig. 4 shows the method of *graphically* converting a given scale of feet to a required scale of Gunter's links, and also a given scale of Gunter's links to a required scale of feet. Two straight lines, C A and C B, intersecting at C, are drawn at any angle apart. About 30° is a favourable angle to fix upon. The scale of Gunter's links is applied to the line C A and its subdivisions are pointed off upon this line. From C as centre with C A as radius, the distance C A is transferred to B. A line is then drawn from sixty-six divisions upon the scale of Gunter's links to the point B, and the line C B, representing the length of one hundred Gunter's links, is then subdivided into sixty-six equal parts representing 66 ft., by drawing lines parallel to E B from the subdivisions upon the line C A to the line C B. Thus a series of similar triangles is formed, and a scale of feet equivalent to the given scale of Gunter's links is arrived at. Conversely to draw a scale of Gunter's links equivalent to a scale of foot links, sixty-six divisions upon the line D F are transferred to the line D G, which is then subdivided into 100 parts by drawing lines parallel to a line joining the point G with the length of 100 divisions from D, measured in the continuation of the line D F.



KINGSTON HOUSE, BRADFORD-ON-AVON.

Sir,—Mr. F. Shum, F.S.A., in his paper on Kingston House, Bradford-on-Avon, read before the Archæological Institute, and reported on p. 267, *ante*, says that that house was one of three built at the same period, and distinguished by the unique similarity of their style in ornament and general effect. One of these is "Kirkby," in Northamptonshire, the seat of Lord Winchilsea; the second is Claverton, near Bath; and the third, Kingston House. He also says that the older parts of Kirkby House were built in the latter end of the fifteenth century.

If by "Kirkby House" is meant Kirby Hall, once the seat of the Marquis of Winchilsea, but now a ruin, no part of it is earlier than 1570, in which year John Thorpe says he laid the first stone. Kingston House certainly looks at least thirty years later than this, and resembles Kirby no more than it resembles any other of the numerous houses built between the years 1560 and 1620. Kingston House, in fact, belongs to a different type, for Kirby is built round a court, and Kingston House is a self-contained oblong. The ornamentation, too, of Kingston House is quite different from that of Kirby (which I know well), except that both houses are in the style of the Renaissance.—Yours truly,

August 20th, 1887. J. A. G.

LANDSLIP, DORKING TUNNEL.

Sir,—I had the opportunity of inspecting this tunnel a few days since, and I thought, perhaps, a short report might interest your readers.

On the morning of the accident I was through the tunnel, and to my profound surprise found that a very large portion of the outer wall of the tunnel was removed, consisting of the first course of brickwork, whilst not the slightest attempt had been made to support the centre of the arch, which was dangerously weakened. The whole structure is in a very dangerous state. The portion that has fallen is about 100 yards from the south or Holmwood end of the tunnel. On the right-hand side the brickwork has fallen, leaving a gap of about 27 in.; on the left it is very much larger, extending right across the crown of the arch, and many thousands of tons have come through, forming a huge sand hill.

The wall of the tunnel is built in sections of 12 ft., and the brickwork is of the very worst description, especially the back rings or courses. Three of them have no mortar at all, and the bonding is very bad indeed. It is no wonder at this very spot, during the construction of the tunnel, two lives were lost, and the marvel is, not that the tunnel has fallen, but that it has held together so long. Near the mouth of the tunnel the bricks are slipping from the crown of the arch, and practically the tunnel must be rebuilt, or it will simply be a death-trap to some hapless train. How it has been patched and mended is visible on every hand, and deserves the closest attention of the Government Inspector.

Surveyor.

INSCRIPTION AT WELLOW CHURCH.

Sir,—In the *Builder*, date 20th inst., I read on p. 265, last column, in a notice of the Hungerford Chapel at Wellow Church, "'For love of Thee and Mary is sake.—Praye for them that this lete make.' What 'lete' might mean no one was able to say." Does not the line mean "Pray for those who had this (chapel) built"? I think the expression "let make" was commonly used in this sense in the fifteenth century. A similar expression, "machen lassen," "to have made," is used in modern German.

E. T. S.

*** Of course that is the meaning. The Architectural Association Excursion party, to one of whom we are indebted for the notes on places visited, should have been able to make that out among them. We are obliged to our correspondent for calling attention to it.—Ed.

BRANNON'S FIREPROOF CONSTRUCTION.

Sir,—There are three important references in your issue of the 13th inst., in respect to which I am sure the impartiality of justice always observed in the *Builder* will secure me space to make a few brief remarks.

In the third item of "Notes" there is a great misapprehension. Earl Wemyss referred to the special application of my method to the dome of St. Paul's Cathedral, but even there there is not the slightest ground for the suggestion of timber being so treated as to endanger rot. There never was a more thorough ventilation of the timber, nor so complete an insulation of it from the protecting material as well as from all fire danger.

Your correspondent, Mr. Knill Freeman, also asks for information as to the best mode of building to meet the danger of earthquakes. It was for this purpose, as well as to secure safety from fire, that I devoted myself to the development of my monolithic system. In the Essex earthquake, my house was in the line of greatest disturbance, and was fairly rocked to and fro by it, although I only observed a few of my special precautions in the building. Not the slightest injury ensued, although Patrick's tall chimney-shaft at Harwich, to the north-east, and many chimneys to the south-west, were thrown down. Philip Brannon.

*** Earl Wemyss's remarks on the occasion referred to simply amounted to this,—that all buildings ought to be erected on Mr. Brannon's system, because he (Earl Wemyss) was satisfied with it. Such sweeping recommendations are of no practical value whatever. Mr. Brannon's letter would have been more to the point if he had explained exactly how he proposed to cover timber with a concrete, and leave it free for ventilation and inspection. As it is, his letter is a mere assertion of the perfection of his own scheme, which our readers can take for what they think it worth.

RECENT SALES OF PROPERTY.

ESTATE EXCHANGE REPORT.

August 5.

By Glasier & Sons.

(At Brighton.)

Brighton—10, Castle-square, copyhold £3,000

August 16.

By R. W. Mann & Son.

Farnham—The residence called Hale Place, and 10a. 3r. 37p., freehold 3,000

By Debenham, Tewson, & Co.

Highgate—The residence, Highgate Lodge, and 1a. 2r. 11p., freehold 4,300

Willesden, Harrow-road—Four freehold unfinished residences 2,700

Dorset-square—45, Balcombe-street, 33 years, ground-rent 10*l.* 530

By E. & H. Lumley.

St. James's-street—2, Bennett-street, freehold 3,610

By G. H. Masterman & Co.

Cornwall—125 shares, of which 11*l.* 9s. 6d. per share is paid, in the Levant Tin Mine 1,562

August 17.

By Moss & Jameson.

Islington—Improved ground-rents of 43*l.* per annum, 33 years 500

By W. A. Blakemore.

Streatham—72 and 74, Sunnyhill-road, 43 years, ground-rent 5*l.* 345

Sussex, Forest-row—Highgates, and 4a. 0r. 33p., copyhold 650

August 18.

By C. P. Whiteley.

Clerkenwell—19 and 21, Tyson-street, 28 years, ground-rent 30*l.* 760

By G. B. Hilliard & Son.

Limehouse—6, Cayley-street, copyhold 320

By E. Frost.

Lambeth—368 and 370, Kennington-road, 99 years, ground-rent 8*l.*, Duchy of Cornwall lease 255

Peckham—149, Sumner-road, 27 years, ground-rent 2*l.* 10s. 170

Miscellanea.

The Church of St. Mary-le-Strand.—Mr. Henry Poole, well known as the (Westminster) Abbey Mason, writes to the *Times* to say that in consequence of the parapets and vases of this church having been declared to be dangerous by the report of a surveyor in 1878, Mr. Butterfield at that time requested him to examine them with care for the satisfaction of the late rector, whose leave had been asked for their removal. His report was strongly in favour of their stability. The question of the cornice was not then raised by any one. There was no excuse for speaking of the vases and parapets as otherwise than perfectly secure,—as secure against falling, under fair treatment, as they ever had been. After the repairs which this work received from him in 1878 Mr. Poole says he does not understand how the present proceedings can be necessary. "If these vases are to disappear, as the four vases did, some years since, from the angles of the tower, the work becomes one of mutilation. A piece of cornice has now fallen, and the removal which is going on of other vases seems to me to imply a great want of judgment on the part of somebody. The cornice could be examined and repaired without interference with the vases or parapets. It is much easier to kill than to cure. I think the course which is being taken shows panic rather than knowledge of business."

Fountain at Brussels.—One of the ornamental fountains which the English Waterworks Company at Antwerp has presented to the town was unveiled on the 21st inst., in the presence of the local authorities. It is the work of the Belgian sculptor, Jef Lambeaux. It has been placed on the Grande Place, the finest open space in the city. Part of the cost has been met out of Baron Nottebohm's legacy for the embellishment of the public squares of Antwerp. The Brussels Museum has acquired another Rubens, representing Diana and her followers boar-hunting at sunset. The picture is well preserved.—*Times*.

Yorkshire Penny Bank, Sheffield.—The directors of the Yorkshire Penny Bank, having purchased a site in Fargate and New Surrey street (immediately opposite the site of the proposed Municipal Buildings), invited the following firms of architects to enter into competition for the proposed bank and hotel buildings:—Messrs. Smith & Tweedale, W. H. Thorp, Perkin & Bulmer, Leeds; Mr. Jacobs, Hull; Messrs. Milnes & France, Bradford; Messrs. Flockton & Gibbs and Empsall & Smith, Sheffield. The directors decided to give the work to the architect whose design should be chosen, and to pay an honorarium of 25*l.* to each of the unsuccessful competitors. All the architects, except Messrs. Milnes & France, sent in designs. At the general board meeting held on Friday, August 19th, the plans of Messrs. Perkin & Bulmer were chosen, and they were appointed architects. The building will consist of bank premises, *café*, and hotel, in the Early Gothic style, and will be executed in stone. The cost of the buildings and site will be upwards of 13,000*l.*

Pulpit, Oxford.—A pulpit of elaborate design has been fixed in St. Barnabas Church, executed by Messrs. Heaton, Butler, & Bayne, from the design of Mr. A. W. Blomfield. The Church of St. Barnabas is of the Basilica type, and the pulpit is designed with details of Italian type to suit the building. The material used is walnut. The framework is supported on six pedestals, and is spaced out into nine bays, each containing a panel with circle above it; in the circles are represented the nine orders of angels, and below, in the larger panels, figures of St. Clement, St. Ignatius, St. Polycarp, St. Chrysostom, St. Augustine of Hippo, St. Leo the Great, St. Gregory the Great, and St. Augustine of Canterbury. The costumes of the figures have been carefully studied, and it is claimed that they are archæologically correct. The remainder of the pulpit is covered with elaborate decoration in gold upon black ground. The staircase and balustrading are also decorated. The whole is surmounted by a very massive sounding-board, enriched with cresting; on the under surface is a painting of the Pelican.

The Preservation of Scaffold Ropes.—The *American Machinist* states that ropes used for scaffolding purposes, especially in localities where the atmosphere is apt to destroy hemp, should be dipped, when dry, in a bath containing 20 grains of sulphate of copper to a litre (1¾ pint) of water, and kept in this solution for about four days. The sulphate of copper absorbed tends, it is said, to preserve ropes thus treated from attacks of parasites and rot.

A Coast Guard Station is to be built at Clacton-on-Sea, consisting of an officer's residence and eight residences for the Coast Guard men. Mr. W. T. Hook, Clacton-on-Sea, is the contractor for the work.

PRICES CURRENT OF MATERIALS.

TIMBER.	£. s. d.	£. s. d.
Greenheart, B.G. ..... ton	5 10 0	7 10 0
Teak, E.I. ..... load	8 10 0	13 0 0
Sequoia, U.S. ..... foot cube	0 2 3	0 3 0
Ash, Canada ..... load	3 0 0	4 10 0
Birch ,, ...	2 0 0	3 10 0
Elm ,, ...	3 10 0	4 10 0
Fir, Dantzic, &c.	1 10 0	4 0 0
Oak ,, ...	3 10 0	4 10 0
Canada	3 0 0	6 0 0
Pine, Canada red	2 0 0	3 10 0
,, yellow	3 0 0	4 0 0
Lath, Dantzic ..... fathom	3 0 0	5 0 0
St. Petersburg	4 0 0	5 10 0
Wainscot, Riga ..... log	0 0 0	0 0 0
Odessa, crown	2 10 0	3 0 0
Deals, Finland, 2nd and 1st ... std. 100	7 0 0	8 0 0
,, 4th and 3rd	5 10 0	6 10 0
Riga	5 10 0	7 0 0
St. Petersburg, 1st yellow	8 0 0	13 0 0
,, 2nd ,, ...	7 0 0	8 0 0
,, white	6 10 0	8 10 0
Swedish	0 0 0	0 0 0
White Sea	0 0 0	0 0 0
Canada, Pine, 1st	16 0 0	24 0 0
,, ,, 2nd	10 0 0	15 0 0
,, ,, 3rd, &c.	6 0 0	9 0 0
,, Spruce, 1st	5 0 0	9 0 0
,, ,, 3rd and 2nd	5 0 0	7 0 0
New Brunswick, &c.	5 0 0	6 10 0
Battens, all kinds	4 0 0	10 10 0
Flooring Boards, sq., 1 in., prepared, First	0 8 0	0 11 0
Second	0 6 6	0 7 6
Other qualities	0 4 6	0 6 0
Cedar, Cuba ..... foot	0 0 3½	0 0 3½
Honduras, &c.	0 0 3	0 0 3
Australian	0 0 3	0 0 6
Mahogany, Cuba	0 0 4	0 0 1½
St. Domingo, cargo average	0 0 4	0 0 2½
Mexican ,, ...	0 0 3½	0 0 5
Tobasco ,, ...	0 0 3½	0 0 5
Honduras ,, ...	0 0 3½	0 0 5

TIMBER (*continued*).	£. s. d.	£. s. d.
Maple, Bird's-eye ....ton	8 0 0	11 0 0
Rose, Rio ....ton	7 0 0	9 0 0
Bahia....ton	5 0 0	12 0 0
Box, Turkey ....foot	0 0 5	0 0 9
Satin, St. Domingo ....foot	0 0 6	0 0 10
Porto Rico	0 0 3½	0 0 5½
Walnut, Italian		
METALS.		
IRON—Bar, Welsh, in London...ton	4 7 6	4 15 0
,, in Wales ....ton	4 2 6	4 7 6
,, Staffordshire, London	5 10 0	6 0 0
Sheets, single, in London	0 0 0	0 0 0
Hoops ,, ...	0 0 0	0 0 0
Nail-rods ,, ...	0 0 0	0 0 0
COPPER—		
British, cake and ingot ....ton	43 10 0	44 0 0
Best selected	44 10 0	45 10 0
Sheets, strong....	50 0 0	0 0 0
Chili, bars	40 7 6	40 15 0
YELLOW METAL ....lb.	0 0 0	0 0 0
LEAD—		
Pig, Spanish....ton	11 17 6	11 18 9
English, common brands....	13 2 6	13 5 0
Sheet, English	13 2 6	14 6 9

METALS (*continued*).	£. s. d.	£. s. d.
SPELTER—		
Silesian, special ....ton	14 15 0	14 17 6
Ordinary brands....	14 12 6	14 15 0
TIN—		
Straits....ton	103 0 0	0 0 0
Australian	103 2 6	0 0 0
English ingots	107 0 0	0 0 0
ZINC—		
English sheet ....ton	0 0 0	0 0 0
OILS.		
Linseed ....ton	21 0 0	21 5 0
Cocoanut, Cochin	30 0 0	33 0 0
Ceylon	23 15 0	24 0 0
Palm, Lagos	21 0 0	0 0 0
Rapeseed, English pale	23 0 0	23 5 0
,, brown	21 15 0	0 0 0
Cottonseed, refined	20 15 0	21 0 0
Tallow and Olein	25 0 0	45 0 0
Lubricating, U.S.	5 0 0	6 0 0
,, refined	5 0 0	12 0 0
TURPENTINE—		
American, in casks ....cwt.	1 5 9	1 16 0
TAR—		
Stockholm ....barrel	0 14 0	0 14 6
Archangel	0 9 6	0 9 9

CONTRACTS AND PUBLIC APPOINTMENTS.

Epitome of Advertisements in this Number.

CONTRACTS.

Nature of Work, or Materials.	By whom required.	Architect, Surveyor, or Engineer.	Tenders to be delivered.	Page.
Granite	Brentford Local Board	— Lacey....	August 30th	ii.
Painting, &c.	War Department....	*Official*	August 31st	x.
Coal, Coke, and Lime	Hendon Local Board ...	S. S. Grimley	Sept. 2nd	ii.
Stoneware Pipe-Sewers	Tottenham Local Board	— De Pape	do.	ii.
Private Street Improvements....	Bognor Local Board ...	W. L. Barrett	do.	ii.
Repairs to Shire Hall	County of Hertford.....	Urban A. Smith.....	do.	ii.
Making Roads and Laying Drains, Tunbridge Wells....	Owner, Meadow Hill Estate	....	Sept. 3rd	ii.
Construction of Reservoir	Oswestry Corporation...	Pilliter & Rofe.....	Sept. 6th	ii.
Enlarging Laundry	Managers, Kensington, &c., School District	A. & C. Harston	Sept. 8th	ii.
New School Buildings, Skipton	The Governors	*Official*	Sept. 10th	ii.
Disinfectants	St. Luke's Vestry.....	do.	do.	ii.
Widening Green Lanes	Tottenham Local Board	— De Pape.....	Sept. 12th	x.
Engine-House, &c.	do.	do.	Sept. 13th	x.
Various Works to Workhouse Buildings	Cheltenham Union	*Official*	do.	x.
Hospital Buildings	Warwick Jt. Hospital B.	do.	Sept. 14th	ii.
Outfall Sewer	Dawlish Local Board...	do.	Sept. 17th	x.
Roads and River Walls	Met. Board of Works...	do.	Sept. 30th	ii.
Formation of Carriageway and Lake	do.	do.	October 13th	ii.
Alterations & Improvements to Water Supply	do.	do.	October 18th	ii.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary.	Applications to be in.	Page.
Borough Surveyor	Doncaster Corporation	250*l.* per annum.....	August 31st	xiv.
Clerk of Works	New Malden Local Bd.	3*l.* 3*s.* weekly.....	Sept. 5th	xiv.

TENDERS.

BARNES.—For completing three semi-detached villa residences in Fitzgerald-avenue, West Barnes Estate. Mr. Augustus Walton, surveyor, 6, King-street, Cheapside :—

Harrison & Spooner, Cannon-street..	£1,057 0 0
Healey & Co....	795 0 0
Croaker, Great Dover-street	676 0 0
Pickersgill, Fulham	588 0 0
MacLachlan, Clapham	566 0 0
Brooker, Fulham....	567 0 0
Harvey	510 0 0

BARNET.—For alterations and additions to Lyonsdown, New Barnet, for Mr. Austin. Mr. Alfred Allen, jun., architect. Quantities supplied by Mr. A. Johnson :—

J. O. Richardson (accepted).....	£1,321 0 0

BETHNAL GREEN.—For new drying-closet and repairing old closet at the Workhouse, Waterloo-road, Bethnal Green, for the Guardians of Bethnal Green. Messrs. A. & C. Harston, architects, Leadenhall-street. Quantities not supplied :—

J. W. Fraser & Co....	£494 0 0
G. W. Pratt	482 0 0
J. & F. May	410 0 0
R. Crane	398 0 0
Harper Twelvetrees	395 0 0
Clements, Jeakes, & Co.	376 17 6
E. Thompson, Leeds (accepted).....	346 10 0

BURNLEY.—For house for Mr. T. Bayne, Ighten Grange, Burnley. Quantities by the architect, Mr. G. B. Rawcliffe, Nicholas-street, Burnley :—

Accepted Tenders.

Kearsley & Robinson (masons and bricklayers)	£555 0 0
Geo. Smith & Sons (carpenters and joiners)	275 0 0
S. Whitehead (plumber and glazier)...	140 0 0
Wm. Stanworth (slater)....	99 18 0
Preston & Son (plasterers)	72 0 0
O. Lister (concrete flooring)	19 12 6

[Painting not included.]

BUXTED (Sussex).—For alterations and additions to The Lodge, Buxted, Sussex. Mr. T. Gordon, A.R.I.B.A., architect. Quantities supplied by Mr. J. Rookwood :—

Aaron Moon	£1,635 0 0

CAMBRIDGE.—For the erection of shop and premises in Fitzroy-street, for Mr. P. Coulson. Mr. Frank Waters, architect. Quantities by the architect :—

Sindall, Cambridge....	£398 0 0
Kerridge & Shaw....	351 10 0
Saint (accepted)	333 0 0
Willmott & Sons	330 0 0

CAMBRIDGE.—For reflooring the Corn Exchange with patent wood block flooring. Quantities by the architect, Mr. Frank Waters, F.S.I., Cambridge :—

W. H. Stanley....	£898 19 6
G. Slater....	804 0 0
H. C. Coulson	750 0 0
G. E. Mills	686 0 0
M. Atkin	679 17 6
P. Banyard	667 9 6
Royall Bros.	659 0 0
M. Yarrow....	655 0 0
H. Turner	587 0 0
Willmott & Sons (accepted).....	580 0 0

CAMBRIDGE.—For the erection of a house in the Cherryhinton-fields Estate, Mill-road, Cambridge. Quantities by the architect, Mr. Frank Waters, F.S.I. :—

W. Hogg, Cambridge....	£295 10 0
Pamphilan Bros., Cambridge *	286 0 0

* Accepted.

CAMBRIDGE.—For the erection of a public-house and three cottages on the Abbey Estate, Newmarket-road. Quantities by the architect, Mr. F. Waters :—

Kerridge & Shaw, Cambridge	£919 0 0
G. J. Newman, Cambridge	871 0 0
Waters & Feast, Haddenham	863 11 0
Willmott & Sons, Cambridge	795 0 0
W. Saint, Cambridge	768 0 0
A. Bunting, Fenstanton, St. Ives, Hunts (accepted).....	725 0 0

CAMBRIDGE.—For the erection of refreshment-rooms at the Cambridge Cattle Market. Quantities by the architect, Mr. Frank Waters, F.S.I. :—

Pamphilan Bros., Cambridge	£1,091 16 0
P. Banyard, Cambridge....	980 2 0
G. Mills, Cambridge	967 2 4
G. Slater, Cambridge	945 0 0
Mason & Sons, Haverhill	939 0 0
W. Saint, Cambridge	929 0 0
A. Bunting, Fenstanton....	905 0 0
Redding, Cambridge	848 0 0
Willmott & Sons, Cambridge*	837 0 0

* Accepted.

CAMBRIDGE.—For paving at the Cambridge Cattle Market with granite setts. Mr. Frank Waters, surveyor :—

Pamphilan Bros., Cambridge	£685 0 0
G. Slater, Cambridge....	646 0 0
P. Banyard, Cambridge....	622 0 0
Redding, Cambridge	576 0 0
Mason, Haverhill....	553 0 0
W. Saint, Cambridge....	530 0 0
G. Mills, Cambridge	525 0 0
Royall Bros., Cambridge (accepted)...	504 0 0
Willmott & Son, Cambridge	504 0 0
A. Bunting, Fenstanton	502 0 0

CAMBRIDGE.—For the erection of a public-house and three cottages in Thoday-street, Romsey Town, Cambridge. Mr. F. Waters, architect. Quantities by the architect :—

H. Pryor, Cambridge (accepted)	£650 0 0

CLAPTON.—For pulling down and rebuilding the Windsor Castle public-house, Clapton. Mr. Spence, architect :—

Mowlem & Co, ...	£3,235 0 0
T. Boyce....	2,668 0 0
W. Shurmur	2,637 0 0
Colls & Son....	2,536 0 0
J. Morter	2,526 0 0
Harris & Wardrop	2,490 0 0

COVENTRY.—For works in connexion with new streets, Coventry. Mr. E. J. Purnell, surveyor :—

C. G. Hill	£775 0 0
C. Haywood	715 10 0
W. Boon....	675 0 0
B. Wilkins....	630 0 0
A. Turner & Son (accepted)....	590 0 0

DURHAM.—For the erection of a cottage at Dryburn, Durham, for Mr. John Lloyd Wharton, M.P. Mr. H. T. Gradon, architect, Durham :—

Wm. Walton....	£410 0 0
G. Gradon & Son....	392 3 0
F. Gibson (accepted)....	380 3 0

[All of Durham.]

EASTBOURNE.—For additions to Old Town schools. Mr. Alfred Chandler, architect :—

B. Sawyers....	£497 0 0
S. Deadman	462 10 0
L. Huggett....	457 0 0
Newman & Hart (accepted)....	435 0 0

FARNHAM (Hants).—For building chapel, lodge, mortuary, boundary-walls, &c., for the Farnham Local Board of Health. Mr. Albert L. Guy, architect, 78, High-street, Lewisham :—

John S. Bechervaise, Fareham	£2,834 0 0
W. R. & C. Light, Portsmouth	2,491 0 0
George Stallard, Havant *	2,450 0 0
G. H. Blackman, Fareham	2,399 0 0
H. Ingram & Son, Woking	2,373 0 0
J. Crook & Son, Northam	2,237 0 0

* Amended estimate accepted.

HACKNEY.—For repairs, &c., at St. Thomas'-square Chapel, Hackney :—

Exton & Burton	£254 0 0
Woodward....	247 0 0
W. Shurmur	247 0 0
Nixon	193 0 0
Steel Bros....	181 0 0

HAMPSTEAD.—For the erection of new house at West Heath Park Estate, Hampstead, for Mr. F. Garrett :—

Holloway Bros. (accepted)	£2,029 0 0

[No competition.]

HARROW.—For alterations at Oldfield House, Harrow Mr. Banister Fletcher, architect :—

Tout....	£275 0 0
J. O. Richardson (accepted)	258 0 0

HOMERTON.—For erecting boundary-wall and two coach-houses at the Eastern Ambulance Station, Homerton, for the Managers of the Metropolitan Asylums Board. Messrs. A. & C. Harston, architects, Leadenhall-street. Quantities not supplied :—

Coulsell Bros., Bethnal Green.....	£1,362 0 0
J. Holland, Bromley	1,131 0 0
J. Derry, Clapham	1,040 0 0
W. Nash, Newland-terrace, Kensington (accepted)	1,025 0 0

HURST (near Reading).—For alterations to stabling and barn, &c., for Mr. R. G. Cobham. Mr. W. Ravenscroft, architect, Reading :—

J. Bottrill, Reading (accepted)	£386 15 9

LAVENHAM (Suffolk).—For the restoration of Lavenham Guildhall, for Mr. W. C. Quilter, M.P. Mr. John Shewell Corder, architect, 9, Thorofare, Ipswich :—

Contracts 1 and 2.

Hawkins, Monks Eleigh (accepted) ...	£353 0 0

LIMEHOUSE.—For alterations to offices for the Aberdeen Steam Navigation Company. Mr. George Judge, architect :—

Priestley & Gurney	£230 0 0
J. Sparks	230 0 0
G. Nye	220 0 0

LONDON.—For alterations to the Lamb public-house, 512, Kingsland-road. Messrs. Wilson, Son, & Aldwinckle, architects, East India-avenue, Leadenhall-street :—

Builders' Work.

Andrew & Nanson	£2,728 0 0
C. Cox....	2,650 0 0
F. Gill....	2,633 0 0
Jarvis & Son	2,499 0 0
John Hearle & Son	2,491 0 0
Drew & Cadman	2,469 0 0
W. Shurmur	2,464 0 0
Jackson & Todd	2,395 0 0
J. Mills (accepted)	2,320 0 0

Shop Fitters' Work.

Sage & Co....	£980 0 0
Colls	975 0 0
Drew & Cadman (accepted)....	739 0 0

LONDON. — For the erection of new offices at Acorn Works, Edward-street, Blackfriars, for Messrs. F. W. Reynolds & Co. Mr. Thos. W. Willis, architect :—

T. Grant....	£499 0 0
W. King & Son....	433 0 0
J. Nye & Co....	396 0 0
J. A. Taylor	395 0 0
W. & F. Croker	390 0 0
A. R. Flew (accepted)	379 0 0

LONDON.—For reconstruction of drainage and sanitary work at the Offices of the Strand District Board of Works, Tavistock-street, Covent-garden. Mr. Arthur Ventris, surveyor :—

Dent & Hellyer	£190 0 0
Hayward, Tyler, & Co.	150 0 0
Jennings (accepted)	110 0 0

LONDON.—For reconstruction of drainage and sanitary work at the Hotel Windsor, Victoria-street. Mr. C. Stanley Peach, architect :—

J. Simpson & Sons	£361	0	0
Doulton & Co.	310	0	0
Sharp & Co.	166	14	4
Jennings (accepted) *	160	0	0

* Add for subsequent works, 32*l.*

LONDON.—For alterations, &c., to the White Bear public-house, St. Luke's. Mr. J. Jewhurst, architect :—

Spencer & Co.	£520	0	0
W. Shurmur	499	0	0
Burch & Co.	491	0	0
Dixon & Co.	475	0	0
Leeks & Hooker	350	0	0

LONDON.—For proposed new house and crèche, for St. Saviour's Priory, Great Cambridge-street, Hackney-road. Mr. C. H. M. Mileham, architect. Quantities by Messrs. Gardiner, Son, & Theobald :—

Boyce	£6,830	0	0
Dove Bros.	6,675	0	0
Williams	6,253	0	0
Dorey	5,649	0	0
Grover	5,596	0	0
Holloway Bros. (accepted)	5,454	0	0

[Architect's estimate, 5,437*l.*]

LONDON.—For the rebuilding of premises, 232, Goswell-road. Mr. E. R. Moore, architect, 69, Lincoln's Inn-fields :—

Bruce	£1,863	0	0
Higgs	1,650	0	0
McCormack	1,585	0	0
W. Evans (accepted)	1,539	0	0

LONDON.—For shop-front and fittings, for Messrs. Barker, Broad-street. Mr. G. Pearson, architect, Warnford-court :—

Sanders & Sons	£308	12	0
Colls	270	0	0
Drew & Cadman	269	0	0
Ward & Lamble (accepted)	263	0	0

LONDON.—For new parcels office, alterations to offices, and extension of roof, at London Bridge Station, for the London, Brighton, and South Coast Railway Company. Mr. F. D. Banister, engineer :—

J. O. Richardson (accepted)	£2,369	0	0

LONDON.—For pulling down and rebuilding 62, Fore-street, Cripplegate, for Mr. Howard. Mr. E. Power, architect. Quantities by Mr. Mark W. King :—

Colls & Sons	£1,544	0	0
Gatfield	1,475	0	0
Eaton	1,418	0	0
Grover	1,400	0	0
Ramsey	1,397	0	0
Dover	1,345	0	0
A. & E. Braid	1,190	0	0
J. O. Richardson (accepted)	1,169	0	0

LONDON.—For new warehouse at Kentish Town, for Messrs. Schuppisser & Son :—

Illingworth	£2,436	0	0
Fuller & Co.	2,168	0	0
Lister & Co.	1,980	0	0
Wood Bros.	1,783	0	0
Leaver & Sons	1,767	0	0
Ashford & Co.	1,750	0	0
Gould & Brand	1,559	0	0
Morris & Luke	1,530	0	0
Wall Bros.	1,464	0	0
J. O. Richardson	1,369	0	0

LONDON.—For repairs and decorations at 14, St. John's Wood Park. Mr. Edward Power, architect :—

Gatfield	£385	0	0
Birch	379	0	0
Hancock	302	0	0
Hughes	287	0	0
Dover	269	0	0
J. O. Richardson (accepted)	221	0	0

LUTON.—For the erection of farm-house at Nether Crawley, for Mr. J. Crawley, under the superintendence of Mr. W. Eve, Union-court, Old Broad-street :—

William Dunham & Son	£1,480	0	0
Francis F. White	1,360	0	0
George Kingham	1,250	0	0
W. G. Dunham	1,182	0	0
Richard Lord	1,149	0	0
J. & A. Long	1,112	0	0
Daniel Parkins (accepted)	1,078	0	0

[All of Luton.]

MAPLEDURHAM.—For new lodges at Mapledurham, Oxon, for Mr. J. D. Blount. Mr. W. Ravenscroft, architect, Reading :—

	One Lodge.	Two Lodges.
A. W. Dodd, Caversham	£370 0 0	£740 0 0
S. East, Reading	350 0 0	695 0 0
J. C. Cook, Reading*	326 0 0	649 0 0

* Accepted.

PAIGNTON.—For erecting and finishing a shop on the Gerston Estate, for Mr. A. Falk. Mr. S. Woodbridge, jun., architect, High-street, Brentford :—

C. & R. R. Drew (accepted)	£360	0	0

[No competition.]

PAIGNTON.—For erecting and finishing a shop on the Gerston Estate, for Mr. Pethybridge. Mr. S. Woodbridge, jun., architect :—

C. & R. R. Drew (accepted)	£208	0	0

[No competition.]

READING.—For alterations and additions to Trinity Congregational Church, Reading. Mr. W. Ravenscroft, architect, Reading. Quantities supplied by Messrs. Cooper & Sons, Maidenhead :—

J. C. Cook, Reading (accepted)*	£2,153	0	0

* Subject to a few modifications. This was the lowest of nine tenders.

READING.—For alterations and additions to Orwell House, for Mr. O. Ridley. Mr. W. Ravenscroft, architect, Reading :—

Wheeler Bros., Reading (accepted)	£750	0	0

READING.—For alterations to premises, Broad-street, Reading, for Messrs. Wellstead, Son, & Co. Mr. W. Ravenscroft, architect, Reading. Quantities supplied by Messrs. Cooper & Sons, Maidenhead :—

J. Bottrill	£338	10	0
W. H. Simonds	376	0	0
J. H. Margetts	342	1	0
S. East (accepted)	329	0	0

[All of Reading.]

SANDHURST.—For new porch and vestry to Sandhurst Church, Berks. Mr. W. Ravenscroft, architect, Reading :—

	Porch.	Vestry.
Wheeler Bros., Reading*	£300 0 0	£200 0 0

* Accepted.

SOUTHWARK.—For new street sewer, &c., Lavington-street, Southwark, for the Ecclesiastical Commissioners. Messrs. B. B. Grantham & Son, engineers, Northumberland-avenue :—

Rogers & Dickens, Chesterton-road (accepted)	£2,006	0	0

STEPNEY.—For constructing strong-room to the Stepney Branch of the London and South-Western Bank (Limited). Messrs. Thos. & Wm. Stone, architects, Great Winchester-street :—

W. Gregar	£474	0	0
J. T. Robey	394	0	0
Godfry & Son	340	0	0
Atherton & Latta (accepted)	319	0	0

STOKE NEWINGTON.—For erecting house in Green-lanes, for Mr. A. Mears. Mr. J. Groom, architect. Quantities supplied :—

		A.
Grover & Son	£2,956	£333
Stimpson & Co.	2,886	330
Lawrance & Sons	2,879	268
Mattock Bros.	2,773	373
Jackson & Todd	2,770	230
Exton & Burton	2,717	315
H. L. Holloway	2,430	419

A.—Deduct if Portland cement facing in lieu of Portland stone.

STREATHAM.—For proposed public hall and drill-room at Streatham. Mr. Edward Power, architect. Quantities by Mr. Mark W. King :—

J. Dover	£6,200	0	0
J. Smith & Son	5,547	0	0
G. J. Smith	5,520	0	0
J. & C. Bowyer	5,435	0	0
J. T. Chappell	5,425	0	0
Kirk Bros.	5,320	0	0
Ingram	5,311	0	0
R. J. Humphries	5,195	0	0
D. Brown & Co.	5,125	0	0
W. M. Dabbs	5,072	0	0
A. M. Deacon & Co.	5,035	0	0
G. Stevenson	5,004	0	0
A. & E. Braid	4,975	0	0
H. Gatfield	4,950	0	0
H. Ockenden	4,896	0	0
Newton & Idle	4,637	0	0
J. O. Richardson	4,580	0	0

TUNBRIDGE (Kent).—For the reconstruction of Great Bridge, Tunbridge. Mr. F. W. Ruck, County Surveyor. Quantities by Messrs. Ruck, Son, & Smith :—

Contract No. 1.—Builders' Work.

					A.		
J. D. Ridley, Middlesbrough	£3,900	0	0	...	£336	0	0
H. Young & Co., Pimlico	3,185	0	0	...	350	0	0
Jas. Farrow, Maidstone	2,354	19	3	...	459	1	5
Turner (Limited), Watford	2,087	0	0	...	550	0	0
Ball & Gammon, Strood	1,900	0	0	...	337	15	0
Punnett & Sons, Tunbridge	1,877	10	2	...	409	14	5
Geo. E. Wallis, Maidstone*	1,773	0	0	...	373	0	0

A.—Separate estimates for footpaths, &c.

* Accepted.

Contract No. 2.—Ironwork.

John Ellis, Reading	£2,313	10	4
Drury & Biggleston, Canterbury	2,198	5	0
Phœnix Foundry, Derby	1,770	0	0
H. Young & Co., Pimlico	1,730	0	0
James Farrow, Maidstone	1,724	0	0
R. Morsland & Son, London	1,724	0	0
George E. Wallis, Maidstone	1,648	0	0
Balls & Garrett, Maidstone	1,610	0	0
T. D. Ridley, Middlesbrough	1,580	0	0
Weeks & Son, Maidstone	1,556	14	6
Turner (Limited), Watford	1,500	0	0
Matthew T. Shaw & Co.	1,469	0	0
Ball & Gammon, Strood	1,425	0	0
Jukes, Coulson, Stokes, & Co., London	1,418	0	0
Gray Bros., Tunbridge (accepted)	1,359	14	3
Chas. Williams & Co., London	1,339	5	0

WOKING.—For new pavilion, Woking. Mr. Wm. I. Chambers, architect :—

Woods, Weybridge	£3,447	15	0
Martin Wells & Co., Aldershot	2,768	15	0
Gale, Woking	2,276	0	0
Shears, Maybury (accepted)	2,097	0	0

WOKINGHAM.—For alterations and additions to house, &c., Wokingham, Berks, for Mr. A. J. Nicholson. Mr. W. Ravenscroft, architect, Reading :—

	Additions to House.	Repairs to Old Part.	New Harness Room.
A. Binnis, Wokingham	£373 0 0	£70 8 0	£27 7 0
G. T. Phillips, Wokingham	198 0 0	99 0 0	94 0 0
J. Bottrill, Reading*	194 0 0	40 0 0	77 0 0

* Accepted.

Fire Station, &c., Harrow.—Mr. A. E. Addis, of Hounslow, writes to say that the amount of his tender for these works was 1,902*l.*, not 1,631*l.* as stated in the list which we published on the 13th inst. The list was printed as sent to us by the quantity surveyor.

*** **SPECIAL NOTICE.**—*Lists of Tenders* frequently reach us too late for insertion. They should be delivered at our office, 46, Catherine-street, W.C., **not later than 12 Noon on THURSDAYS.**

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Registered Telegraphic Address, "THE BUILDER, LONDON."

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We are compelled to decline pointing out books and giving addresses.

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